The Planning Inspectorate
Yr Arolygiaeth Gynllunio

Adroddiad

Ymchwiliad a agorwyd ar 31/01/12
Ymweliad â safle a wnaed ar 14/02/12

gan Clive Nield BSc (Hons) CEng MICE MCIWEM C.WEM

Arolygydd a benodir gan Weinidogion Cymru

Dyddiad: 02/04/2012

Report

Inquiry opened on 31/01/12
Site visit made on 14/02/12

by Clive Nield BSc (Hons) CEng MICE MCIWEM C.WEM

an Inspector appointed by the Welsh Ministers

Date: 02/04/2012

TOWN AND COUNTRY PLANNING ACT 1990

SECTION 78

Application by Glamorgan Power Company Ltd

Land at Varteg Hill, Varteg, Pontypool

Cyf ffeil/File ref: APP/V6945/A/11/2155168

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File Ref: APP/V6945/A/11/2155168

Site address: Land at Varteg Hill, Varteg, Pontypool

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant planning permission.
- The appeal is made by the Glamorgan Power Company Ltd against the decision of Torfaen County Borough Council.
- The application Ref 04/P/09210, dated 7 May 2004, was refused by notice dated 18 January 2011.
- The development proposed is a land reclamation and coal recovery scheme.
- The inquiry sat for 8 days on 31 January – 3 February and 7 – 10 February 2012.

Summary of Recommendation: The appeal be allowed, and planning permission be granted subject to conditions.

Preamble

1. This report includes descriptions of the site and surrounding area, the proposed development, the relevant planning policies, the gist of the representations made, my appraisal and conclusions and my recommendation. Document references are shown in brackets, and in my conclusions the numbers in square brackets indicate the relevant paragraphs of my report. Details of the people who took part in the public inquiry and comprehensive lists of documents and plans are attached at the end of the report. Recommended planning conditions are attached as an Annex.

Procedural and Background Matters

2. The application was made some years ago, 7 May 2004, and was accompanied by an Environmental Statement. However, in response to queries raised by the Council, further environmental and ecological investigations were carried out (see Documents 5.1-5.4), and a revised Environmental Statement was submitted in March 2009 (Documents 8.1-8.3). A Health Impact Assessment and a Restoration Plan were also submitted at that time (Documents 6 & 7). Following the publication of the Minerals Technical Advice Note (MTAN) 2: Coal in January 2009, which introduced the concept of a 500 metres buffer zone around coal working sites, the proposal was revisited and an Addendum/Further Changes to Environmental Statement was submitted in June 2010 (Document 9), which proposed a revised scheme with coal working no nearer than 200 metres from the nearest houses. Further environmental reports on noise and ecological matters were submitted in autumn 2010 (Documents 10.1-10.5). The application was refused by the Council in January 2011.

3. The reason for refusal was: *"Given the site's proximity to residential properties, the nature, scale and duration of the operations proposed would give rise to unacceptable impacts upon the amenities of local residents in relation to noise and dust. The proposal is therefore considered to be in conflict with Policy M1 of the Adopted Gwent Structure Plan and furthermore, there are no exceptional circumstances presented in the application of sufficient weight, which would override the general policy presumption in Minerals Technical Advice Note 2: Coal that surface working of coal should not occur within 500 m of a settlement"*.

4. The appeal was lodged in June 2011, and on 8 August 2011 the appeal was recovered for determination by the Welsh Ministers as *"the proposal is considered a major proposal involving the winning and working of minerals"*. A Statement of Common

Ground between the Appellant Company and the Council was completed on 7 November 2011 (Document 12), and a pre-Inquiry meeting was held on 8 November 2011. Further assessments of noise and dust impacts were carried out before the public inquiry (Documents 11.1-11.3).

5. In the run-up to the Inquiry the Council also raised queries about the nature of the ground at the western face of the proposed coal excavations and about inconsistencies in some of the geological information (Document 13). As a result, the Appellant accepted that the hillside at that location is made up of former opencast backfill and that the western face of the proposed excavation would have to be redesigned (Document 21, including a slope stability analysis in Appendix 6). As a result, the scheme was amended with the western face moved some 10 metres to the east, and the scheme is now considered on this basis. In addition, further geological investigations were carried out shortly before the inquiry (3 boreholes) to confirm the soil and rock conditions, including the depths and thicknesses of the coal seams (Documents 30.1-30.4). This data was discussed outside the Inquiry by experts for the Appellant and the Council, and an agreed Position Statement was presented to the Inquiry (Document 30.5).

6. The Environmental Statement was advertised in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 1999, and all further environmental information has either been similarly advertised or received and considered through the public inquiry procedures. Thus the requirements of the EIA Regulations in these respects have been complied with.

7. Two third party groups were attributed "Rule 6 status" under Rule 6(6) of the Inquiries Procedure Rules: the Pentwyn Against Opencast Group; and the No Opencast at Varteg Campaign. The former intended to support its case with the help of an expert witness, Dr Van Steenis. However, during the course of the Inquiry it was found he was unable to attend, and at very short notice an alternative witness, Mr Coghill, was brought forward to present evidence and ask questions of the Appellant's expert witnesses. The Inquiry timetable was rescheduled to enable him to participate fully in the Inquiry.

8. The Appellant has put forward a Section 106 Unilateral Undertaking which covers arrangements for a restoration bond up to £2.6M in value, a local liaison committee, arrangements for the footpath network, and the timing of development work on an adjacent housing development site recently granted planning permission on appeal.

9. At the end of the Inquiry I carried out a site visit accompanied by representatives of the 2 main parties, both Rule 6 parties and several other third parties. The site visit encompassed visits to: Ysgol Bryn Onnen, the Welsh language primary school in Varteg; Pembroke Terrace and Pembroke Place, the houses closest to the site; the coal tips on the site; the Western Valley where some of the overburden material would be disposed of and where several physical and ecological features raised by third parties were viewed; the access track to Blaenmelyn Farm and its proposed realigned route; the proposed access from the main road; the route for heavy coal lorries through Blaenavon; and a point on the B4248 road between Blaenavon and Brynmawr where a cycle route will cross the road.

10. The Inquiry was completed on 10 February 2012. However, as further late submissions were received from Mr Coghill (on behalf of the Pentwyn Group) late that day, the Inquiry was left open to enable the Appellant Company to respond to any specific points raised, and a timetable was agreed for that response. The Inquiry was formally closed in writing on 21 February 2012.

Site and Surroundings (Documents 8.2 & 12)

11. The appeal site comprises 62 hectares of land at Varteg Hill immediately to the west of the village of Varteg and some 2.5 km (1.5 miles) south of Blaenavon. Part of the site at its northern end lies within the Blaenavon Industrial Landscape World Heritage Site. It occupies an elevated position on the western side of the Afon Llwyd Valley, above the B4246 Varteg Road, which links Garndiffaith and Talywain to the south with Blaenavon to the north. (OS map at Fig 2.1 in Document 8.2)

12. The site is in 2 main parts. The eastern part is bounded on its eastern side by Varteg Road except where it cuts back around Salisbury Terrace, Pembroke Terrace and Pembroke Place and the fields just to the south of them (Plan A). This part of the site is a mixture of open and enclosed fields and areas of rough grazing, spoil tips, and the remains of former mine buildings and structures (see photographs in Section 2 of Document 8.2), including numerous adits and shafts to former mine workings (plan at Appendix C of Document 32). The western boundary generally follows the access track off Varteg Road, which runs south past the service reservoir before turning westwards across the western part of the site to serve Blaenmelyn Farm some distance further to the west (Plan A).

13. The western part of the site is a shallow, narrow valley most of which lies to the north of the access track. Although disputed by a third party, the 2 main parties agree that this valley has been associated with opencast operations in the past and is largely covered in backfill material. It is open hill land used for the grazing of sheep and is subject to common land rights.

14. Beyond the site boundaries the village of Varteg lies to the east with further dwellings, a public house and Ysgol Bryn Onnen on the eastern side of Varteg Road, and Garndiffaith lies to the south, part of it within 500 metres of the southern end of the site. To the north of the site are the remains of further spoil heaps and open grazing land, and to the west are the open slopes of Mynydd Varteg Fach.

15. The geology of the area comprises strata belonging to the Lower and Middle Coal Measures, dipping gently to the southwest (Sections at Document 30.4). The coal measures are dominated by mudstone facies with subordinate sandstones, siltstones and thin coal seams. There are 2 significant sandstone strata (Section at Document 30.6).

Proposed Development (Documents 9, 20 & 21)

16. The scheme proposed in 2009 was for the removal of some 350,000 tonnes of coal. However, that was revised in 2010 (as described above in response to publication of MTAN2) to achieve about 325,000 tonnes of coal, and shortly before the Inquiry further amendment involving movement of the western face has now reduced the coal yield to

about 256,000 tonnes. As the proposed rate of work has remained the same the duration of operations has been reduced and now stands at less than 4 years.

17. The 2010 Addendum/Further Changes to Environmental Statement (Document 9) illustrates the proposed 4 phases of development (see plans in Appendix 1). Initial site preparation work involving fencing, access improvements, establishment of an office compound at the northern end of the site, construction of water treatment areas, diversion of services and limited stripping of topsoil would take about 3 months. Phase 1 of the main works would then take about 10 months and would comprise excavation of the main box cut in the south-western corner of the site (after the first 5 weeks the excavators would be working below ground level), construction of most of the (temporary) overburden mound along the eastern side of the site to screen the village of Varteg from future operations (which would take about 3 months), and deposition of the remaining overburden material to the western part of the site (generally referred to as "the Western Valley"), which would then be subject to final restoration work.

18. Phase 2 would involve extension of the excavation in a northerly direction and use of the overburden material partially for completion of the eastern overburden mound and partially for progressive filling of the void from its southern end. The temporary eastern overburden mound would contain some 750,000 m^3 of material and would be up to 24 metres above existing ground level at a distance of 110 metres from Pembroke Terrace and Pembroke Place. No blasting operations are proposed for removal of the coal and overburden materials and no on-site processing of coal. Coal would be loaded directly on to lorries and transported (via Blaenavon) for processing off site at a steady rate of about 2,500 tonnes per week. Phase 2 would take about 10 months.

19. Apart from the haulage of the coal Phase 3 operations would take place entirely within the working void, which would progress steadily in a northwards direction. The overburden material would be used to fill the void progressively from the southern end, and excavation to the northern end would be completed. All coal removal would be completed during this phase. Restoration of the southern part of the site would be carried out progressively in accordance with the Restoration Plan (Document 7). Phase 3 was estimated to take 19 months for the 2010 scheme but this would be reduced to just over 12 months for the amended 256,000 tonnes scheme.

20. Finally, Phase 4 would take about 12 months and would involve the gradual removal of the eastern overburden mound and use of the material to fill the remaining void. Construction of the mound during Phases 1 and 2 would be carried out working from the outside inwards in order to ensure that most of the work was carried out behind the part of the mound already constructed (to maximise screening to the nearby houses), and removal of the mound during Phase 4 would be carried out using a reverse method (see sketch illustration at Document 22.1). For the final 6 weeks the machines would not be screened by the embankment and a temporary fence would be erected to achieve an element of screening for the nearby houses. Final site restoration works would be carried out during this phase, including removal of the site haul road and office compound.

21. The final site restoration proposals are illustrated on Figure 11 of the Restoration Plan (Document 7) and on Plan L07 of Mr Evers' evidence (Document 25.1). The Western Valley would be restored to common land grazing about 5 years after commencement

of the development. The main (eastern) part of the site would become a more diverse landscape with a mixture of fields and more natural habitats and a range of heathland, acidic grassland and wetland. The footpath network would be reinstated and improved, and the proposal includes a 10 year aftercare and management plan for the various restoration measures.

Planning Policy (Documents 12, 20 & 32)

22. The development plan comprises the Torfaen Local Plan, adopted in July 2000, and the Gwent Structure Plan, adopted in 1996. The statement of common ground lists relevant policies: Local Plan policies G1, E4, E5 and H7 (Document 4.2); and Structure Plan policies M1, M4, M5, L1 and L2 (Document 4.1).

23. Local Plan Policy G1 aims to safeguard the general character of the area, the amenity of nearby residents and the environment. Policy E4 supports land reclamation and environmental enhancement schemes in Landscape Improvement Areas where they would enhance the quality, character, and visual and ecological amenities of the area. The Local Plan Northern Proposals Map shows the appeal site to lie within a designated "Landscape Improvement Area" (extract of map is also enclosed in section 2 of the 2009 Environmental Statement - Document 8.2). Policy E5 supports the reclamation of derelict land where the proposal enhances and improves the environment and has regard to nature conservation, archaeological features and appropriate after-use. Finally, Policy H7 does not permit development proposals that are of such a scale as to adversely affect the integrity of the Landscape of Outstanding Historical Interest at Blaenavon.

24. Turning to the Structure Plan, Policy M1 lists the criteria against which mineral development is to be considered and these include effects on the amenity of neighbouring communities, traffic movements, landscape, drainage, nature conservation, archaeological interests, economic contribution, site condition and mineral sterilisation. Policy M4 aims to achieve appropriate restoration or reclamation of surface mineral workings and waste tips, and Policy M5 says applications for opencast coal mining will be assessed against the criteria of Policy M1 and this will be particularly stringent for large scale development or development likely to cause excessive environmental damage or disturbance to nearby communities. Policies L1 and L2 address landscape improvement. Policy L1 says particular encouragement will be given to the reclamation of derelict land, and Policy L2 gives priority to land reclamation and other environmental improvements in "Landscape Improvement Areas", as identified in Local Plans.

25. The emerging Torfaen CBC Local Development Plan (Document 4.3) was placed on deposit in March 2011 but has not yet been subject to examination and carries little weight. Nevertheless, draft Policy M1 aims to avoid the sterilisation of important mineral resources, and draft Policy M2 proposes the introduction of Coal Working Exclusion Areas within 500 metres of settlements.

26. National policy on coal mining is contained in Minerals Planning Policy Wales (MPPW), dated December 2000, and Minerals Technical Advice Note 2: Coal (MTAN2), dated January 2009. MPPW says that the Government's central energy policy is to ensure a secure, diverse and sustainable supply of energy at competitive prices, while taking

into account the environment, health and safety. Coal extraction will be expected to meet the needs of society whilst protecting amenity and the environment, and, recognising the potential negative effects on sensitive receptors, paragraph 40 of MPPW sets out how buffer zones should be included in development plans to safeguard areas around existing or proposed mineral workings.

27. Paragraph 62 of MPPW says: *"Proposals for opencast or deep-mine development or colliery spoil disposal will be expected to meet the following requirements otherwise they should not be approved:*

    - *The proposal should be environmentally acceptable or can be made so by planning conditions or obligations, and there must be no lasting environmental damage;*
    - *If this cannot be achieved, it should provide local or community benefits which clearly outweigh the disbenefits of likely impacts to justify the grant of planning permission;*
    - *In National Parks and Areas of Outstanding Natural Beauty (AONBs), proposals must also meet the additional tests set out in paragraph 21 above;*
    - *Within or likely to affect Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs), Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar Sites must meet the additional tests set out in paragraphs 23 and 25 above;*
    - *Land will be restored to a high standard and to a beneficial and suitable after-use"*

28. In addition, paragraph 63 (as replaced by Ministerial Interim Minerals Planning Policy Statement 01/2009) requires a Health Impact Assessment to accompany any application for opencast coal working, and paragraph 63a says this may inform the Environmental Statement.

29. MTAN2 sets out detailed advice on the mechanisms for delivering the policy for coal extraction. Particular attention has been drawn to its reference to the use of buffer zones in paragraphs 32 and 49. Paragraph 32, in the Local Development Plan part of the document, says: *"MPPW sets out the concepts and policy on buffer zones in paragraph 40: a Buffer Zone is described as an area of protection around permitted and proposed mineral workings"* and *"The MPA will show buffer zones on the Proposals Map, as 500m around permitted or proposed working, from the site boundary, unless there are exceptional circumstances as set out in paragraph 40 of MPPW or in paragraph 51 below"*. Paragraph 51 refers to circumstances where the site boundary is drawn widely to encompass conservation areas outside the operational boundary where work will generate only insignificant impacts.

30. Paragraph 49 says: *"Exceptionally, having considered the evidence put forward with a surface or underground coal working application, coal working may be permitted within 500m of settlements. Factors to be considered include:*

    - *where coal working provides the most effective solution to prevent risk to health and safety arising from previous mineral working;*

- *to remediate land damaged by shallow coal workings or mine waste, where coal extraction appears to be the most suitable option;*
- *where topography, natural features such as woodland, or existing development, would significantly and demonstrably mitigate impacts;*
- *where major roads or railways lie between the settlement and the proposed operational area and coal working would not result in appreciable cumulative and in-combination effects;*
- *where the surface expression of underground working does not include the significant handling or storage of the mineral or waste;*
- *when the proposal is of overriding significance for regeneration, employment and economy in the local area; or*
- *where extraction would be in advance of other, permanent, development which cannot reasonably be located elsewhere."*

31. Paragraph 50 of MTAN2 goes on to say: *"Where such exceptions justify surface working within 500m of a settlement, the area of working should be restricted to the area reasonably necessary for remediation. The MPA should seek the best balance between the scale, working-method and the timing of individual phases, the opportunities for early restoration and aftercare, and hours of working. Strong evidence of the necessity for remediation, including the evaluation of options, is required to justify working within 200m of a settlement, and the social and environmental impacts on the affected settlement must be carefully weighed."*

32. MTAN2 also provides advice in relation to dust in paragraphs 132-156 and noise in paragraphs 167-177. Paragraph 137 provides advice on health risks: *"Particulate air pollution is emitted from many different sources and may damage human health and the environment. Emissions should be avoided, prevented or reduced. Epidemiology has consistently demonstrated an association between adverse health effects and particulate matter; there is no known safe level of exposure to particulate matter and exposure can lead to impacts ranging from minor effects on the respiratory system to premature mortality. There is general consensus that some health effects are dominant in susceptible subgroups, for example elderly people, children, those with pre-existing lung or heart disease or diabetics. The balance of evidence suggests that it is combustion-derived components of PM_{10}, rather than particles from natural sources, that are primarily responsible for harmful effects. (Department of Health (DoH), 1999)"*

33. Paragraph 138 says that the national Air Quality Strategy *"sets health-based objectives to maintain and improve the quality of ambient air"* and that *"The Air Quality (Wales) Regulations 2000 set the objectives for particulate matter"*. Paragraph 139 goes on to say *"When assessing proposals for coal operations, the predicted emissions of particulate matter must not cause a breach in overall air quality standards"*. In addition, paragraph 142 says: *"The potential health impacts of particulate matter from opencast sites are often raised as a health concern by local communities. Endorsed by the Committee of Medical Effects on Air Pollutants, the University of Newcastle-upon-Tyne's report "Do particulates from opencast mining impair children's respiratory health?" (DOH 1999) concluded that it is relevant to consider the contribution of*

opencast sites to PM_{10} levels in communities up to 1000m from a site. Health issues will be considered in the HIA, supported by specific dust and particulate matter assessment."

34. Larger particles can give rise to dust nuisance, and paragraph 155 advises that a maximum of 80 mg/m^2/day as a weekly average should be specified by condition. Advice on best practice for the assessment and control of dust emissions is included in Appendix K of MTAN2.

35. Paragraph 173 advises that controls should be applied to noise emissions, with limits normally set at noise sensitive properties. The limits suggested are: background noise level plus 10 dB L_{Aeq} 1hr or 55 dB L_{Aeq} 1hr (free field), whichever is the lesser, during normal working hours of 0700 – 1900 hours Monday to Friday; in some locations these noise levels may be more appropriate between 0800 – 1800 hours, with reduced levels for dawn and evening one-hour periods; reduced levels may also be appropriate on Saturday mornings if operations are to take place then; at all other times, limits should not exceed 42 dB L_{Aeq} 1 hr (free field).

36. In addition, paragraph 174 makes particular provision for short-term operations that cannot meet these noise limits, such as the construction of a baffle mound closer to sensitive properties, which would have longer-term environmental benefits. Where justified, MTAN2 advises maximum noise limits of up to 67 dB L_{Aeq} 1 hr (free field) for periods up to 8 weeks in a year and limited to between 1000 – 1600 hours Monday to Friday. Paragraph 175 also advises that planning authorities should be mindful of the noise caused by traffic both on and off site. Finally, Appendix M provides advice on best practice for the assessment and control of noise levels on the site.

Case for the Glamorgan Power Company Ltd

The material points are:

Introduction (Document 52)

37. Although other matters have been raised by third parties, the key issues between the Council and the Appellant are quite narrow:

    (1) Is the scheme in accordance with the site specific designations of Landscape Improvement Areas in the development plan?

    (2) If so, are these designations outweighed by the more general policies in the development plan and national guidance?

    (3) Do the environmental impacts of the scheme outweigh the desirability of implementing the Landscape Improvement Area policies?

    (4) Are there any realistic prospects for implementing these policies if the appeal is dismissed?

    (5) Where does the balance of advantage lie?

38. The Statement of Common Ground between the Appellant and the Council (Document 12) lists the areas of agreement. The Council considers the scheme acceptable in respect of impacts on: road traffic, nature conservation, pollution risks, landscape, archaeological features, health, and temporary loss of public access to the land. It also accepts that the proposed restoration plan forms a sound basis for positive enhancement in keeping with obligations in development plan and national policy. At present the land is littered with the detritus of earlier mining activities, substantial coal tips on the side of the valley and various shafts, adits and cavities below the surface of the ground.

Policy Support for Reclamation (Documents 32 & 52)

39. The appeal site lies within a Landscape Improvement Area (LIA) designated in Local Plan Policy E4, which also supports land reclamation schemes that improve and enhance the quality, character, visual and ecological amenities of the area. Supporting text further indicates that the removal of dereliction in such areas should be afforded a high priority and that the Council will seek to promote land reclamation projects within the LIAs.

40. Structure Plan Policy L2 also gives priority to land reclamation in Landscape Improvement Areas identified in Local Plans. Supporting text says: these areas are *"identified as strategic priorities for landscape improvement"*; and that *"concerted efforts be sustained ……. in order to eradicate the competitive disadvantage of these areas as places to live, invest and visit"*. Policy L1 gives general encouragement to the reclamation of derelict land, and the supporting text makes particular mention of the Varteg Tips as one of only 2 areas not programmed for improvements. It is clear that the Council expected the Welsh Development Agency to achieve a programme of reclamation *"most speedily and effectively"* and that it wished *"the County to be substantially free of unsightly dereliction before the turn of the century"* (i.e. 2000). It anticipated 75% of the land yet to be reclaimed to be for agricultural, forestry and amenity use, and that *"Reclamation may occasionally be achieved as a by-product of mineral working or other development, where this is acceptable under the terms of other planning policies"*.

41. The main implementation vehicle originally anticipated, the Welsh Development Agency's programme of improvements, no longer exists and there is no evidence of any other funding coming forward to carry out this reclamation work. The proposed scheme would achieve the aims of these policies, which were described as *"strategic priorities"* at the time, and would be entirely in accord with details in the explanatory text. The only element of development plan policy at issue with the Council is in respect of noise and dust generation, and it is common ground that the other criteria listed in Structure Plan Policy M1 either support the proposal or are neutral towards it. Thus, if the noise and dust impacts were acceptable (as the Appellant maintains), it would be common ground with the Council that the proposal would be entirely in accordance with the development plan. It is the Appellant's case that that is so.

Application of Other Policies (Documents 32 & 52)

42. In addition to noise and dust, the Council's reason for refusal refers to conflict with MTAN2 in respect of the 500m buffer zone. During the course of the Inquiry the Council

has also introduced the concept of the precautionary principle and argued that concerns about noise and dust should be regarded as conflicting with MTAN2 as well as Structure Plan Policy M1. Before addressing this argument, it is appropriate to consider the wider national policy context of the scheme.

43. National minerals policy is contained in MPPW, and paragraph 5 acknowledges that mineral working is different from other forms of development in that:

- extraction can only take place where the mineral is found to occur – in this respect, the Council's objection is to the details of the scheme rather than the principle of coaling in this location;

- it is transitional rather than permanent development – in this case, coaling operations would last less than 3 years, and the whole scheme less than 4 years;

- adverse environmental effects should be avoided if possible; however, if this is not possible, working needs to be controlled and monitored to mitigate effects on local communities and the environment to acceptable limits – in this case, it would not be possible to avoid adverse effects but suitable conditions could be applied to ensure that acceptable limits would not be exceeded;

- when operations cease the land needs to be reclaimed to a high standard and to a beneficial and sustainable after-use and to bring discernible benefits to communities and/or wildlife – in this case, it is the restoration aims that are the impetus for the scheme, and it is common ground with the Council that the restoration of the land (see Restoration Plan at Document 7) would bring worthwhile benefits in landscape and appearance, safety of access, enhanced public rights of way, and ecological enhancement.

44. The proposal is also supported by other policy principles in MPPW. It is a key principle that society's needs for minerals should be met and sterilisation of resources avoided. A balance has to be struck between prudent use of resources and protection of amenity and the environment. Although the amount of coal extracted would represent only a small proportion of coal consumption in Wales, the Coal Authority supports the appeal scheme as a useful contribution (email at Document 31), and the exploitation of the coal on this site could be achieved at an exceptionally low ratio of total excavation to coal quantity won (Document 29.1). There is a ready market for the coal, which is of high calorific value and volatility, and the scheme would be in accord with central Government policy to ensure a secure, diverse and sustainable supply of energy.

45. The requirements of MPPW paragraph 62 would be met in that the proposal would be environmentally acceptable, or could be made so by planning conditions or obligations, and there would be no lasting environmental damage. In fact, there would be environmental gains once the restoration works were carried out. It is interesting that reference is also made to local or community benefits being taken into account if necessary in order to outweigh the disbenefits of likely impacts. This reference to "likely" shows clear acknowledgment that predicted impacts cannot be assessed with absolute certainty.

46. Turning to the Council's latest assertions about the precautionary principle, it is pertinent that there is no mention of this in MPPW or, except in the definition section, in MTAN2. However, it is accepted that it is an important principle of Welsh Government policy. MTAN2 defines the precautionary principle as:

    "The principle by which, where there are threats of serious or irreversible damage, lack of scientific certainty should not be posed as a reason for postponing cost-effective measures to prevent environmental degradation. Authorities should act prudently to avoid the possibility of irreversible environmental damage in situations where the scientific evidence is inconclusive but the potential damage could be significant. It applies particularly where there are good grounds for judging either that action taken promptly at comparatively low cost may avoid more costly damage later, or that irreversible effects may follow if action is delayed."

47. It is not appropriate to apply these principles to the appeal proposal. Given the temporary nature of the works there is no prospect of *"irreversible damage"*, and the Council does not claim there to be *"serious damage"*. There has been no question of *"postponing cost-effective measures to prevent environmental degradation"*, and *"lack of scientific certainty"* has not been an issue until raised by the Council at the Inquiry. As acknowledged in MPPW (see above), predicted impacts cannot be assessed with absolute certainty. The noise and dust impact assessments have been carried out by experienced experts in these fields using accepted best practice methodologies and a range of conservative assumptions. There is a high level of confidence in the results. The Council's argument that the precautionary principle should be applied as a reason for dismissing the appeal is completely misplaced.

48. The Council has argued that use of the terms *"ensuring"* and *"ensure"* in the second bullet points of MPPW paragraph 7 supports the need for certainty. However, that is equally misplaced, particularly as the terms are applied to *"the protection of human health and safety"* and *"the restoration and aftercare"* provisions, matters on which the Council takes no issue whatsoever. The argument can be applied in reverse as the appeal scheme is the only means by which restoration of the land can be "ensured"; there is little prospect of this development plan aim being achieved by any other means.

49. Turning finally to the MTAN2 provisions for a 500m buffer zone, it should be borne in mind that MTAN2 does not have the status of policy. In paragraph 1 it is described as *"detailed advice"*, and MPPW describes it as *"technical guidance"*. As such, it is a material consideration but does not attract the statutory presumption that applies to the development plan. It does not override the provisions of either the development plan or MPPW. However, it does provide useful guidance on acceptable levels of noise and dust, which inform the judgement of these impacts in the context of compliance with Structure Plan Policy M1 (acceptability of the impact on neighbouring communities). Save for imperceptible occasional noise exceedances, the standards advised in MTAN2 would be met.

50. MTAN2 makes provision for exceptions to be made to its 500m buffer zone limit, and paragraph 49 suggests factors to be considered. It is common ground that this is not an exhaustive list and that other factors may be applicable. The fixed relationship of tips to residences coupled with the priority accorded in the development plan to land

reclamation in Landscape Improvement Areas and the current situation where the only prospect of achieving this policy aim is in conjunction with a coaling scheme must be factors to be considered under paragraph 49. The Ward Councillor accepted that, if the scheme does not go ahead, there will be no environmental benefits for Varteg as the village has been neglected by the Council and there is no other source of finance for the restoration works. It is also remarkable (perhaps *"exceptional"*) that the most immediately affected local residents appear to support the scheme. The opposition to it has emanated from people who live further away from the site (and the unsightly waste tips), people whose main concerns relate to increased traffic through the streets of Blaenavon, and people concerned about the nearby primary school and risks to its pupils.

51. Of the factors listed in MTAN2 paragraph 49 the first, second and sixth are relevant to the appeal proposal: *"where coal working provides the most effective solution to prevent risks to human health and safety arising from previous mineral workings"*; *"to remediate land damaged by shallow coal workings or mine waste, where coal extraction appears to be the most sustainable option"*; and *"when the proposal is of overriding significance for regeneration, employment and economy in the local area"*.

Noise Impacts (Documents 11.2, 23 & 52)

52. Noise levels generated by the proposed development have been modelled using best practice methodology in accordance with national policy guidance. In order to reduce noise levels smaller plant and vehicles are now proposed in comparison with those originally envisaged (and that formed the basis for the Council's refusal of the application). Noise levels used in the modelling were based on the manufacturer's data or, if not available, on standard industry guidance. After agreeing requirements with the Council, the revised modelling work was carried out in November 2011 (Document 11.1) and was further updated in January 2012 to include an additional scenario for hard ground requested by the Council (Document 11.2). The latter was found to make very little difference. The modelling assumed a temporary acoustic screen was used during the initial and final stages of the scheme and that the full or partial screening embankments would be in place at other times.

53. Based on experience, outdoor amenity areas (usually the rear gardens) and indoor downstairs rooms were taken to be the most critical locations for the nearby houses. However, contrary to the approach agreed with the Council, the Council now argues that façade noise levels at the wall nearest to the site (generally the front of the house) should also meet the prescribed standards. This change in approach only became apparent a few weeks before the Inquiry and has been explained by the Council's expert witness as a "change of mind". That witness has very little experience of assessing noise from opencast coal mining, as evidenced by the change of approach. It is relevant that ETSU's (the Energy Technical Support Unit for the Department of Trade and Industry) guidance on The Assessment and Rating of Noise from Wind Farms specifically says that *"noise limits applied to protect the external amenity should only apply to those areas of the property which are frequently used for relaxation or activities for which a quiet environment is highly desirable"* (Document 24.1). Nevertheless, the scheme has been reassessed against this additional criterion.

54. MTAN2 (paragraph 173) advises that planning conditions should apply absolute controls on noise emissions measured outside sensitive properties as follows:

    - a limit of background noise level plus 10 dB L_{Aeq} 1 hr or 55 dB L_{Aeq} 1 hr (free field), whichever is the lesser during normal working hours; and

    - a limit of 67 dB L_{Aeq} 1 hr (free field) between hours of 1000 – 1600 hours for periods of up to 8 weeks per year during initial soil stripping and baffle mound construction and final removal of the mound.

55. At Varteg background noise levels are quite low and have been measured as just under 35 dB L_{90} (the noise level exceeded for 90% of the time during the measurement period). Thus the noise limit to be set for the scheme would be 45 dB L_{Aeq} 1 hr (free field). This is an outdoor limit; MTAN2 does not suggest an acceptable limit for indoors. However, other national guidance (TAN11: Noise) makes reference to BS 8233, Sound Insulation and Noise Reduction for Buildings, which provides appropriate design criteria and recommends 40 dB L_{Aeq} 1 hr as a reasonable noise level for habitable rooms. Modelling work has been carried out against these standards using worst case assumptions for plant locations and movements for each stage of the scheme.

56. The results show that, except for the first few weeks and last few weeks of the scheme when the baffle mounds are starting to be constructed and being removed, noise levels at all outdoor amenity areas (rear gardens and school playing fields) would be less than 45 dB L_{Aeq} 1 hr and that during the first few weeks and last few weeks the 67 dB L_{Aeq} 1 hr limit would not be exceeded (see Table 4.2 of Document 11.2). It has been suggested that the modelling takes no account of bulldozer noise as it moves back and to when constructing the edge of the mound. That is not so. Although the bulldozer would only run to the near edge of the mound for a few seconds at a time, the model has assumed the worst case scenario with the bulldozer working at that position.

57. The assessment of noise levels at the nearest facades (see Table 4.1 of Document 11.2), as now suggested by the Council, shows more exceedances of the 45 dB L_{Aeq} 1 hr limit but still none of the 67 dB L_{Aeq} 1 hr limit. The 45 dB L_{Aeq} 1 hr limit would probably be exceeded at a number of nearby houses (and at the primary school) during the first and last few weeks of the scheme and at Pembroke Terrace and Pembroke Place (the nearest houses to the working area) at other times. However, the latter would be no more than 1 or 2 dB L_{Aeq} 1 hr over the limit, and that amount would be barely discernible. Bearing in mind that these predictions are based on worst case assumptions, that any exceedances that occurred during the main part of the scheme would be short-term fleeting occurrences, and that these locations do not generally represent outdoor amenity areas, these incidents would not materially affect the amenity of nearby residents.

58. Indoor noise levels have been assessed using the predicted façade noise levels and allowing a reduction of 13 dB to represent a partially open window. The only predicted exceedances of the 40 dB L_{Aeq} 1 hr indoor limit would be at a few of the nearest houses (Pembroke Terrace, Pembroke Place and Salisbury Terrace) during the first few and last few weeks of the scheme. If windows were closed the limit would not be exceeded at all.

59. It is standard practice to apply reductions of 10-15 dB between outdoor and indoor noise levels assuming partially open windows, and the 13 dB reduction applied has been taken as a mid-range figure. However, the Council has also asked for the assessment to be repeated with a reduction of only 10 dB. That would extend the risk of exceeding the 40 dB L_{Aeq} 1 hr standard during those short periods of time at the start and end of the scheme to a small number of other nearby properties but, again, would not materially affect the amenity of the occupants.

60. The Council has argued that particular importance should be attached to maintaining an internal noise level of 22 dB L_{Aeq} 1 hr, which is calculated as 13 dB lower than the present outdoor background noise level of 35 dB L_{Aeq} 1 hr. However, it is quite inappropriate to apply the calculation in this way as noise generated within a house would probably be much higher than this in any case (see The Decibel Scale at Document 46.2). Indeed, 22 dB is so low that it is even close to the limit of ability to measure low levels of noise.

61. Third parties have expressed particular concern about noise levels at the primary school where some of the classrooms are prefabricated temporary buildings with less insulation than permanent buildings. A further assessment has been carried out on this (Document 24.2). BS 8233, Sound Insulation and Noise Reduction for Buildings, recommends design noise levels for reasonable listening conditions in classrooms of 35 dB L_{Aeq} T as "good" and 40 dB L_{Aeq} T as "reasonable". Based on quite conservative assumptions about the construction of the prefabricated buildings and the noise characteristics of typical specifications, internal noise levels from the opencast workings would be less than 30 dB L_{Aeq} T at all times and less than 20 dB L_{Aeq} T for most of the time. Thus noise effects inside the classrooms would be negligible.

Dust Impacts (Documents 11.3, 27.1 & 52)

62. As recommended by MTAN2, the US Environmental Protection Agency's guidance document AP42, Compilation of Air Pollutant Emission Factors, has been used as the basis for predicting dust emissions and modelling dust dispersion from the site, and it has not been disputed that it is dust from the haul road that would be the main source of dust from the site operations. Sandstone, excavated on the site, would be used for the haul road. However, as that material is currently underground, it has not been possible to measure its likely silt content (the methodology involves use of a whisk broom and dustpan on the surface of the road – see Document 28.2), so a typical value from Table 13.2.2-1 of AP42 has been adopted (see Document 28.1). In that table, which is for unpaved roads, the mean haul road value for Western Surface Coal Mining sites has been adopted, i.e. 8.4% (MTAN2 recommends that the guidance for Western Surface Coal Mining be followed). A dust suppression factor of 90% has been used, based on expert experience and confidence that adequate water bowser measures would be achieved on this site. Conservative assumptions have been taken for various other factors, such as the moisture contents of coal and overburden materials.

63. Meteorological data for the dispersion modelling has been taken from 2 sources, St Athan and Twynyrodyn, near Merthyr Tydfil. Although some 70 km away, St Athan is the nearest weather station where cloud cover data is measured. Twynyrodyn is more representative of Varteg in other respects though it is at a slightly lower altitude. Data

has been selected from the 2 sources for the worst years available and to provide the worst weather factors for the modelling exercise. The intention is that the modelling should adopt the most conservative assumptions to present a worst case scenario.

64. Dust is a collective name for solid particulate matter and is categorised in MTAN2 as PM_{10} (particles of diameter less than 10μm) and nuisance dust (greater than 10μm). It specifies that dust deposition (i.e. nuisance dust) should not exceed 80 mg/m^2/day as a weekly average, and the modelling indicates that there would be no exceedances of this at any receptors throughout the duration of the works. To test the sensitivity of the modelling, it was rerun using a silt content of 12.6%, a 50% increase on 8.4%. The model predicted a single exceedance of the limit at 3 receptors over the whole period of the works. Further exceedances were only predicted if the silt content was increased to 19.7% or the suppression factor was reduced to 82%. If the suppression factor were reduced to 75% only 3 exceedance incidents per year were predicted, all at Pembroke Terrace, Pembroke Place and Salisbury Terrace, immediately alongside the main working area. This illustrates the resilience of the modelling results and gives confidence that nuisance dust would not be unacceptably harmful to the amenity of nearby residents.

65. It has been suggested that other assumptions for basic parameters might be more appropriate and that these would give worse results and cast doubt on the level of confidence of the modelling predictions. Firstly, it has been suggested that the USEPA data on which the 8.4% mean value has been based varies over a wide range and that a much higher figure should be used. The sensitivity of this has been described above. However, it is contended that the 8.4% is already a very conservative assumption. On the same table in AP42 (Document 28.1) much lower figures are seen to be appropriate for Taconite Mining sites, and there is a good argument that the geology at Varteg is more aligned with that than the Western Surface Coal Mining category. Haul roads at the latter sites are described as being formed with dirt, whereas roads at Taconite Mines are likely to be formed with sandstone, as at Varteg. The Western Surface Coal Mining sites are also on a much larger scale than the site at Varteg, have much longer haul roads, and have coal processing facilities on the site. These factors all indicate that a silt content of 8.4% is a very conservative assumption for Varteg.

66. The use of a 90% suppression factor has been questioned. However, experience has shown this to be achievable if adequate suppression measures can be applied, and in this case the road is relatively short and could be treated regularly with a water bowser to achieve this level. There would be ample water available, and 2 passes per day would provide as much water as a "wet day" (defined as 0.254 mm per day in the meteorological records). Research at Nottingham University refers to 80% being mentioned in literature (Document 28.5), and the characteristics and relatively small size of the Varteg site gives a high level of confidence that a 90% suppression factor could readily be achieved.

67. The third query was in relation to the meteorological data used for rainfall. However, that is not critical as a "wet day" could be simulated by wetting the haul road with a water bowser. Mention has also been made of particle density. However, sensitivity testing has also shown that to have little effect (Document 27.2).

68. Some objectors have mentioned incidents of nuisance dust occurring at properties close to the Ffos-y-fran opencast coal site at Merthyr Tydfil. However, only 4 complaints were made there last year, and operations at Ffos-y-fran are on a far larger scale than would be the case at Varteg. Nuisance dust was one of the Council's reasons for refusal. However, further assessment has now provided increased confidence that the standard specified in MTAN2 would be met at all times.

Health Impacts (Documents 27.1 & 52)

69. Whilst not an issue with the Council, the health effects of fine dust are of concern to several of the third parties. MTAN2 does not set a specific standard for fine particle dust, PM_{10}, or for the finer $PM_{2.5}$ sub-set that is considered to present the greatest risks to health. However, the Air Quality Standards (Wales) Regulations 2010 (Appendix D of Document 27.1) prescribe appropriate standards as either limit values or target values. Limit values of 40 $\mu g/m^3$ as an annual average and 50 $\mu g/m^3$ as a one day average not to be exceeded more than 35 times per year are prescribed for PM_{10}, and an annual average of 25 $\mu g/m^3$ is set for $PM_{2.5}$. In addition, an annual average target value of 20 $\mu g/m^3$ to be achieved by 2015 is prescribed for $PM_{2.5}$.

70. The most recent dust assessment was carried out in 2010 and is reported in Section 5 of the 2010 Environmental Statement Addendum (Document 9). It predicts additional PM_{10} levels of no more than 6.4 $\mu g/m^3$ at the closest properties which, when added to the present background levels of some 12.9 $\mu g/m^3$, give total levels of less than 20 $\mu g/m^3$, less than half of the limit value for PM_{10}. As $PM_{2.5}$ is a sub-set of PM_{10} it can be concluded that, even if $PM_{2.5}$ were 100% of PM_{10}, there would also be no exceedance of the 2015 target value for $PM_{2.5}$. In fact, $PM_{2.5}$ is likely to be only a small part of PM_{10} so $PM_{2.5}$ levels would be much lower than this and would not present a significant risk to health, even to those living alongside the site.

71. This evidence was considered by the Council and by its consultee, the Aneurin Bevan Health Board, who also consulted the National Health Board and the Health Protection Agency (see committee report of 18 January 2011 in Document 3.1). The Health Board concluded that with regard to air quality there was unlikely to be an adverse impact on public health, and the Council accepted that advice. No new evidence has been raised to suggest that advice to be no longer applicable.

72. Dr Van Steenis and Mr Coghill, on behalf of the Pentwyn Against Opencast Group, have drawn attention to several scientific papers but most of these have already been taken into account by the Government's advisory committee, COMEAP, in providing advice on the standards in the Air Quality Regulations. Particular mention has been made of the Glynneath and Newcastle studies, both of which are well known. The Newcastle study took Glynneath into account, and the Health Impact Assessment (Document 6) referred to the Newcastle study, as does MTAN2 (in paragraph 142). It has been submitted that some quite recent papers raise increased relevant concerns that warrant lower standards being applied, and mention has been made of lower standards in other countries. However, the present Air Quality Regulations are quite up to date, and it is not appropriate to review them through an individual appeal such as this. The scheme would comply with the latest national standards and would present negligible risk to public health.

73. It is pertinent that similar evidence has been presented at other recent opencast coal appeals (see list in Appendix A of Document 27.1) but have not been found to warrant overriding compliance with the air quality national standards in reaching conclusions on risks to public health. Similar conclusions were also reached in 2004 in the Ffos-y-fran opencast coal appeal at Merthyr Tydfil where particular evidence on both the Glynneath study and the Newcastle study was considered (Documents 28.3 & 28.4). There has been no change in national policy or relevant scientific knowledge since that decision.

74. Finally, Mr Coghill has submitted various arguments criticising the calculations carried out using AP42, including an assertion that dust results should be increased by some 90%, particularly in respect of $PM_{2.5}$ assessment. These allegations have largely been addressed in the section above on "Dust Impacts". In addition, although he is a scientist, Mr Coghill is not an expert in this topic and he has not applied the technical guidance correctly. His allegations are misplaced and incorrect.

Traffic Impacts (Documents 32 & 52)

75. A traffic assessment has been carried out as part of the Environmental Impact Assessment and its results are detailed in Section 10 of the Environmental Statement of 2009 (Document 8.2). Coal mined on the appeal site would be hauled northwards on the B4246 and B4248 through Blaenavon to Brynmawr. For the scheme now proposed (some 256,000 tonnes of coal) the haulage would involve about 4 trips per hour (2 in and 2 out) of 20 tonne lorries over the course of each working day for between 2½-3 years. In comparison with traffic levels along this road of some 5,000-5,500 vehicles per 24 hour period, of which about 10% are HGV vehicles, the resulting increase in traffic would not be significant.

76. Mention has been made of the cumulative effects of coal traffic from both the Varteg and Johnson mines if they were to operate at the same time. However, even if this were to occur, the increased traffic would still not be significant. Some third parties are particularly concerned about increased HGV traffic through the centre of Blaenavon itself, where the streets and footways are quite narrow. Traffic flow is also sometimes hampered by parked service vehicles and by funeral corteges outside 2 churches on the route. However, all of these circumstances were taken into account by the Council when it considered the application (see the Committee report in Document 3.1), and its conclusion was that the coal lorries *"would not significantly add to congestion or conflict of vehicles"*. No new evidence has been brought forward to change this view.

77. It is not disputed that the B4246 road through Blaenavon is in places poorly suited to the traffic levels it experiences and that congestion sometimes occurs. However, the town also benefits from much of the traffic which is associated with development in the town itself and with the growing attraction of its World Heritage Centre features to tourists. Further development is planned in the town despite the inevitable additional traffic it will generate, and in the long-term it is up to the Highway Authority to ensure the road network is adequate. The existing highway circumstances do not warrant dismissing this appeal on the basis of an insignificant increase in traffic for a relatively short period of time.

Other Environmental Impacts (Document 32 & 52)

78. Some third parties have expressed concern about the ecological effects of the scheme, particularly in respect of habitats, birds and lichens. A number of ecological surveys have been carried out over the past few years as part of the Environmental Impact Assessment, and the 2009 Environmental Statement (Document 8.2) assessed the implications of the scheme for these matters. Further environmental information since that time has included several more up to date studies (Documents 10.2-10.5), which have not raised anything new. The Council's Committee report (see Document 3.1) included details of various consultee responses to the planning application and recognised the substantial longer-term benefits the scheme would bring. It concluded *"both the Council's Ecologist and the Countryside Council for Wales are satisfied that, provided appropriate conditions are attached to any permission granted, the proposed impacts on designated habitats and European protected species would not be significant and can be mitigated by the implementation of the restoration plan"*.

79. The benefits of the scheme should not be overlooked. The landscape would be much improved visually, and the restoration plan would include a range of habitats for the future. They would be actively managed for 10 years to ensure they became established. The commitment to this work is illustrated by the Appellant's substantial investment towards it (as evidenced by the value of the bond in the Section 106 Undertaking - £2.6M). Such an investment would have wider regenerative benefits by making Varteg a more attractive place to live and visit. In addition, the public rights of way network would be rationalised and improved in cooperation with the Council, and dereliction and safety hazards above and below ground would be removed. These would improve public access to the land and deter regression in future environmental quality.

80. Responding specifically to concerns about birds and lichen, the Appellant's ecological consultant has provided advice about birds such as the grey partridge, which is reported to have declined significantly in recent years (see Appendix G of Document 32). He is of the opinion that the present fragmented habitat is far from ideal and that the restoration plan is likely to create an improved habitat over time. He also comments on the lichen species found there and refers to advice by Joe Hope, the expert lichen surveyor, that the particular species found are *"unlikely to be of high conservation significance"*. Mr Hope advises that the unnamed Psoroglaena species found on the site is not as significant a find as might have at first been thought; it is known to occur elsewhere but has not been fully recorded because of its lack of a name. He also advises that other "nationally scarce" taxa are likely to be generally under-recorded due to their inconspicuous appearance and are now believed to be much more common than previously thought.

81. Finally, it is necessary to respond to Mr Clarke's claims that the landscape of the Western Valley has not been formed by previous opencast mining operations. The 2005 desk study carried out into the feasibility of a coal reclamation scheme in this area (Document 5.1 & extracted at Appendix F of Document 32) found that the 1964 OS Revision states *"Mynedd Farteg Fach is shown largely as opencast workings to the north, south and west of the site"*. The historical maps and the Coal Authority's abandonment plans clearly show the area of the Western Valley was subject to

opencast workings. The Western Valley is within the site boundary of the former Hoskin, Varteg and Tal-y-waun opencast workings (see Coal Authority plan submitted with Harmers' letter of 17 January 2012 at Document 27.2). In addition, site investigations carried out in the valley in the past have shown a significant thickness of opencast backfill overlying original ground levels. The Western Valley is not unspoilt land; its form has been the result of extensive overburden tipping.

82. Mr Clarke maintains that there is a nineteenth century scour, scour leat and dam feature associated with early mineral investigations on the western side of the western valley. It is not accepted that this feature is what it is claimed to be. The archaeological investigation carried out as part of the Environmental Impact Assessment did not identify the feature as of any importance (see Chapter 13 of the 2009 Environmental Statement – Document 8.2).

Alternative Reclamation Schemes (Documents 21, 32 & 52)

83. If the appeal proposal does not proceed there is little likelihood of the Landscape Improvement Area policies being implemented. The 2004 Environmental Statement considered alternative schemes in a general way and reached the conclusion that a coaling scheme could finance the land restoration aims of the development plan. There has been no progress in restoring the tips at Varteg Hill since the development plan components were adopted and there is little prospect of finance coming forward from any other source. Since the scheme was first put forward it has been modified twice, and this represents further consideration of alternatives.

84. The Council has suggested 3 alternative schemes: 2 quite limited schemes aimed solely at addressing the health and safety risks by making the tips safe without any major excavation work (put forward by Mr Croxford); and a reduced coal recovery scheme (put forward by Mr Barnard). The latter would itself involve coal operations close to Pembroke Terrace and a site boundary less than 200 metres from those houses, effectively acknowledging that such distances, well within the 500m buffer zone, could be justified. However, following clarification of the coal seams in that area (from the additional site investigations carried out shortly before the public inquiry), the Council now accepts that scheme would not be practicable and is no longer pursuing it. It is possible some other similar scheme could be designed but the reduced amount of coal production would make it financially unviable.

85. The 2 Croxford schemes would involve limited alterations to the tips to make them safe but would not address the many old mine shafts, adits and underground workings that exist over much of the site (see plan at Appendix C of Document 32). The full details of this dereliction were not available to the Council when it made its decision to refuse the application. The health and safety risks associated with these would remain, and because of their random nature the risks are difficult to predict. The land is common land and/or Open Access Land under the Countryside and Rights of Way Act 2000 with numerous public footpaths across it, and it is regularly used by local people for walking. The Croxford schemes would leave many of the risks associated with dereliction unchanged.

86. The costs of these schemes are seriously underestimated by the Council as a number of factors have not been taken into account, and there is little prospect of them being

funded in the foreseeable future. Furthermore, there have been no assessments of their ecological or landscape impacts or of whether planning permission would be granted for them. However, their main shortcoming would be their failure to address the landscape improvement aims of the development plan policies for this designated Landscape Improvement Area. The unsightly tips would still exist and there would be no provisions for restoration of the land.

87. There has been some suggestion from the Council that coaling work could be extended further to the west beyond the present site boundary. However, the deepening of the coal seams and the existence of substantial depths of overburden further to the west would make such a scheme far less viable and would involve a lot more excavation with inevitable environmental implications. It is highly unlikely that any further scheme to extract coal in that area would come forward in the future, and it is not reasonable to suggest the appeal proposal would cause that coal reserve to be sterilised. The Council witnesses accepted this at the public inquiry.

88. In conclusion, several alternative schemes have been considered, both in preparation of the scheme and during the course of the Inquiry, and the current proposal represents the optimum refinement of the scheme originally put forward. It is the only viable scheme that would achieve the Landscape Improvement Area development plan policy aims for restoration of the site.

500 m Buffer Zone (Documents 32 & 52)

89. Finally, turning to the 500m buffer zone described in MTAN2, which was referred to in the Council's reason for refusal, there is also provision in MTAN2 for exceptions to be made. In this case, the first 2 factors listed in paragraph 49 of MTAN2 would be met: having considered a range of alternatives, the coal working scheme proposed would provide the most effective solution to prevent risks to human health and safety arising from the previous mineral workings on the land; and where coal extraction appears to be the most sustainable option (it is the only option with any prospect of coming forward), it would remediate land damaged both by previous shallow mine workings and by the waste tips from those workings.

90. The sixth factor is also applicable, *"when the proposal is of overriding significance for regeneration, employment and economy in the local area"*. There can be little doubt that achievement of the restoration plan would be of overriding significance for regeneration of the local area. The Ward Councillor accepted that, without it, regenerative benefits would not come to Varteg. Whilst a detailed appraisal of economic benefits has not been put forward, the value of the performance bond included in the Section 106 Undertaking, £2.6M, represents a substantial investment in the local area. The agricultural and amenity end-uses proposed for the restored land are desirable land uses and would enhance the local environment to the benefit of its present and future residents. There would be employment opportunities associated with the development as some 20 jobs would be created for the period of the scheme.

91. Taken together with the relative lack of harm caused by the proposed scheme, the worthwhile long-term benefits to be gained and the development plan policy support, these represent exceptional circumstances to justify overriding the general presumption of a 500m buffer.

Overall Balance (Documents 32 & 52)

92. The proposed scheme is clearly in line with the requirements for opencast development specified in paragraph 62 of MPPW. Having regard to the suggested planning conditions, the Section 106 Undertaking and the expert assessments put forward, the scheme would be environmentally acceptable and would cause no lasting environmental damage (requirement 1). In fact it would have a very positive long-term environmental benefit. As the first requirement would be satisfied, there is strictly no need to meet the second. However, it would also provide meaningful local and community benefits, and it is submitted that the second requirement would also be met.

93. The third and fourth requirements are not applicable in this location. However, there has been no dispute that the land would be restored to a high standard and to suitable and beneficial after-use (requirement 5). Thus all relevant requirements would be met, and the proposal would be fully in accord with development plan policy for reclamation of land in the Landscape Improvement Area and, as impacts would be within acceptable limits, with policy to safeguard amenity and the environment. The only remaining factor is the principle of the 500m buffer zone.

94. A previous legal judgement (*Celtic Energy Ltd v The Welsh Ministers [2011] EWCA 1122*) has addressed the status of MTAN2 where it conflicts with the statutory presumption in favour of the development plan. The Court of Appeal held that: *"decision makers need to ask themselves the question whether the development plan provision … is overruled by a Ministerial TAN, ….. it is not obvious that the 500 metre zone immediately replaces LDP provisions"*. Whilst the circumstances of that case were not the same as here, it must be that the provisions of MTAN2 do not automatically override relevant development plan policies.

95. In this case, the development plan priority is for landscape restoration, and the scheme would provide that. It is common ground with the Council that the scheme would be acceptable in all respects except the impacts of noise and nuisance dust and application of the 500m buffer principle. However, it has now been demonstrated that even these amenity concerns could be overcome and the scheme could be carried out without unacceptable impacts on these and all other matters. The circumstances of the site and its surroundings have not changed since the development plan policies were adopted and, if the buffer zone were applied in a blanket fashion, then the development plan policy aims would never be met and all realistic hope of reclamation of the appeal site would be lost. There are people living next to the site who have been waiting for years for the development plan policies to be put into effect. They support the scheme and are prepared to accept a limited period of inconvenience to gain the long-term environmental benefits.

96. There can be little doubt that exceptional circumstances exist to justify allowing coal working within 500 metres of properties in the village and that the appeal should be allowed.

Case for Torfaen County Borough Council

The material points are:

Introduction (Documents 20 & 51)

97. The statement of common ground (Document 12) details the main matters of agreement and disagreement between the Council and the Appellant. The Council takes no issue on: road traffic/safety; nature conservation (subject to implementation of the Restoration Plan); drainage and pollution; landscape character; benefits of restoration within a Landscape Improvement Area; historical or archaeological features; benefits of the Restoration Plan to enhance nature conservation; temporary loss of public access; and health impacts.

98. The main issues between the 2 main parties are:

- amenity effects of noise;
- amenity effects of dust;
- consideration against Welsh Government (WG) policy for a buffer zone;
- benefits of the scheme in terms of land reclamation and community benefits; and
- practicality and viability of alternative land reclamation schemes.

Relevant National Policy (Documents 20 & 51)

99. Several elements of national planning policy are of particular relevance in considering this appeal. Paragraph 13.13.1 of Planning Policy Wales (PPW) warns that noise can affect people's health and well-being and says that the aim is to prevent and reduce environmental noise and to preserve noise quality where it is good. MPPW (paragraph 7) says minerals decisions should be in accordance with WG's Sustainable Development Scheme and that the main aims include *"to protect human health and safety by ensuring that environmental impacts caused by mineral extraction are within acceptable limits"*. The term *"ensuring that"* indicates there must be certainty that environmental limits would be met. In this case there is no such certainty and so there is conflict with MPPW.

100. WG's Sustainable Development Scheme contains 2 relevant aspects of national policy. Firstly, one of its basic principles is the precautionary principle (see page 26 extract at Document 17.3), which means that, where there is scientific uncertainty in the appraisal of potential impact, the assumption that most protects the environment must be adopted. There is considerable uncertainty in the Appellant's assessments for both noise and dust.

101. Secondly, one of the key outcomes sought by the Sustainable Development Scheme is that *"every community enjoys better local environments which contribute to health and wellbeing"* (see page 32 extract at Document 17.3). In this case, the environment would be materially degraded in terms of noise and dust, and the scheme would conflict with PPW, MPPW and the Sustainable Development Scheme. Paragraph 62 of MPPW says that, if a proposal cannot be made acceptable by planning conditions, it

should not be approved unless it would provide *"local or community benefits which clearly outweigh the disbenefits of likely impacts".* The use of the phrase *"clearly outweigh"* indicates that a high level of benefits must be achieved to justify approval. No such justification would be achieved in this case.

Noise Impact (Documents 16 & 51)

102. Development plan policies say that noise impacts should be reduced to acceptable levels to avoid adversely affecting the amenity of nearby residents. However, the policies rely on national guidance to define what noise levels are considered to be acceptable. MTAN2 provides that the existing noise climate should be taken into account, particularly in areas of tranquillity, and that the scheme should preserve noise quality where it is good, as it currently is in Varteg. Quiet rural areas warrant greater protection than might be expected in noisier urban environments.

103. The background noise level in Varteg has been measured as 35 dB(A) L_{90} 1 hr freefield (i.e. outside). Thus, applying a 13 dB reduction (the allowance for a partially open window in the Appellant's noise impact assessment), this equates to a noise level as low as 22 dB(A) L_{90} 1 hr inside houses. This low noise environment represents a significant element of the quality of life in Varteg.

104. MTAN2 specifies appropriate noise limits for minerals working measured outside noise-sensitive properties, in this case nearby houses and the primary school. Although specified in this way for ease of measurement, the limits are clearly intended to safeguard amenity inside properties as well as outside. Thus, if the MTAN2 noise limits are not met at the façades of properties, then the residential amenity internally will not be adequately protected.

105. It is agreed that the outside noise limit for the proposed scheme should be set at background noise level plus 10 dB, i.e. 45 dB L_{Aeq} 1 hr during weekday working hours. This limit is based on research which has established that if the background noise level is exceeded by noise from a new source by 5 dB there would be a marginal likelihood of complaints being made and that if it is exceeded by 10 dB complaints would be likely. A further 5 dB allowance is required to take into account bangs, clanks and tonal correction. Thus the MTAN2 noise limit generously allows a level of noise ordinarily likely to give rise to complaints to take place for 12 hours per day.

106. Whilst the Appellant has adopted the 45 dB criterion throughout its previous appraisal process, its most recent noise impact assessments (in November 2011 and January 2012 – Documents 11.1 & 11.2) have introduced a new noise limit, a "reasonable" design standard of 40 dB for living rooms based on BS8233, Sound Insulation and Noise Reduction for Buildings. This is equivalent to an external limit of 53 dB, some 18 dB above the background noise levels. An internal noise level of 40 dB would be 18 dB higher than the 22 dB internal background level described above and would give rise to complaints. Rather than being based on local circumstances such a level is a generalised standard more applicable to a noisy urban environment.

107. BS8233 contains 2 standards: the "reasonable" standard adopted by the Appellant; and a "good" standard of 30 dB L_{Aeq} 1 hr. The "good" standard is more appropriate in Varteg and, if it were applied, would equate to an outdoor limit of 43 dB L_{Aeq} 1 hr

freefield, 2 dB less than the MTAN2 derived limit. Thus BS8233 supports the adoption of a lower noise limit than provided for by MTAN2. The Appellant has also made reference to ETSU guidance (The Assessment and Rating of Noise from Wind Farms – extract at Document 24.1) but this provides no assistance. Like MTAN2 it sets noise limits by reference to existing noise levels rather than some general national standard but it provides no support for use of an internal standard of 40 dB.

108. The result is that the MTAN2 noise limit of 45 dB L_{Aeq} 1 hr freefield is the appropriate standard to be applied both in the gardens of residential properties and at their façades. The second noise limit specified in MTAN2 is for short-term operations, 67 dB L_{Aeq} 1 hr freefield for a maximum of 8 weeks per year. This level is 8 times louder than the existing background noise level and would be relied on by the Appellant for short-term operations at the start and end of the scheme.

109. Before addressing the particular results of the noise modelling, the Council is of the opinion that it is neither precautionary nor robust. The modelling has assumed that plant would always be at ground level or below. However, during construction and final removal of the screening bund it would often work at a higher level (see Document 22.1), and on occasions the bulldozer would be working at the outer edge of the top of the bund and clearly visible from the neighbouring houses in Pembroke Terrace and Pembroke Place. Whilst a temporary noise barrier would screen initial work at ground level, once the screening mound exceeded the height of the barrier, a bulldozer working on the top would sometimes be visible, the screening effect of the mound would be much reduced and higher noise levels would reach the neighbouring houses. The Appellant's noise modelling takes no account of this. It is asserted the effect would be marginal but it has not been properly appraised.

110. Notwithstanding this shortcoming, the results of the latest modelling indicate widespread breaches of the MTAN2 45 dB limit for significant periods of time (see Document 17.2, which is a simplified compilation of data from the latest noise impact assessments):

- up to 11 receptors during the first 3 months of Phase 1;
- 2 receptors during Phase 2;
- 1 receptor during Phase 3; and
- 4 receptors during the last 1-2 months of Phase 4.

111. In particular, the modelling results show exceedance of the 45 dB limit for the houses in Pembroke Place and Pembroke Terrace over several phases of the work and over extended periods of time. During the initial part of Phase 1 increases of up to 27 dB above present background levels are predicted at Pembroke Place and Pembroke Terrace, and there would be an increase of 15 dB at the primary school. Some pupils at the school spend 50% of their time outside and, during this period, the noise level would exceed the WHO recommended level for teachers to be heard. All of the exceedances of the 45 dB MTAN2 limit during this period would indicate increases of more than 10dB over background level and would be likely to give rise to complaints.

112. During the latter part of Phase 4 noise levels up to 23 dB above present background levels would be experienced at several residential properties and up to 10 dB higher at the primary school. These are increases likely to give rise to complaints. In addition, and particularly during the main part of Phase 1 (over several months), noise levels close to the 45 dB limit would tend to become the norm, though MTAN2 is clear that such limits should not be seen as the norm.

113. The modelling also shows that short-term operations for which higher noise levels would be permitted would take longer than the 8 weeks allowed for in MTAN2; noise scenarios 1 and 2 cover a 12 weeks period. The Appellant has acknowledged that it could not be guaranteed the short-term operations would not cause exceedance of the 45 dB noise limit for more than 8 weeks; nor could the periods of exceedance at other times be guaranteed. Under these circumstances, it would be unreasonable to impose planning conditions limiting such periods when there is no evidence the conditions could be met. The specified noise limits would be exceeded.

114. It has been suggested that the impact of the noisy short-term operations on the primary school could be reduced if the scheme were commenced during the long summer holiday. However, that would have the greatest effect on local residents who would be likely to be making the most use of their gardens at that time of year. It would also probably be the driest time of the year when the effectiveness of dust mitigation measures would be most tested.

115. In conclusion, noise from the scheme would have significant adverse impacts on residential amenity and the quality of life in Varteg for significant periods of time. Thus it would be contrary to Local Plan Policy G1 and should be accorded considerable weight in balancing the benefits and disbenefits of the scheme.

Impact of Nuisance Dust (Documents 16 & 51)

116. Nuisance dust can have a profound effect on residential amenity and the quality of life of local residents. MTAN2 explains that medium size particles can generally travel 100-250 metres from source and up to 500 metres in adverse weather conditions. A substantial number of residential properties lie within 250 metres of the site, and there is a significant potential for nuisance dust problems to arise from the appeal scheme. MTAN2 advises that dust deposition should be limited to 80 mg/m^3/day as a weekly average in order to avoid unacceptable impact on residential amenity.

117. The Appellant has undertaken modelling of dust creation and dispersion, and this is intended as the basis for judgement as to whether the limit would be exceeded or not. However, the accuracy of the model has not been verified and there is considerable doubt about many of the assumptions made for input to the model. Although Dr Collins, the Appellant's expert witness, has expressed confidence in the modelling, this can be given little weight as there is no evidence-based science to support it. His assertion that he has followed standard practice gives little confidence if no one else has verified the methodology either. The results of the modelling should therefore be approached with a degree of caution.

118. The dispersal of dust is difficult to predict, particularly in the absence of site specific weather data. The Appellant could have collected this data over the past few years but

has not done so and has had to rely on data from other sites. In particular, rainfall data and wind speed and direction data from the Twynyrodyn site, near Merthyr Tydfil, has been used, though the weather characteristics between the different valleys may be very different. Thus there is considerable uncertainty in this key input data. In addition, the density of coal and overburden material has been assumed to be 2.5 g/cm^3 in the dispersion modelling. However, if the density was less the material would remain suspended for longer. There is no evidence to show this assumption is robust, and this is a further uncertainty in the dispersion modelling.

119. Turning to estimation of the emissions of dust to feed into the dispersion model, this is sensitive to key assumptions on the silt content and the effectiveness of mitigation measures on the haul roads, which are the main causes of dust on opencast coal sites. Whilst the model shows the MTAN2 dust limit to be fully met with assumptions of 8.4% silt content and 90% suppression factor, it also shows exceedance would begin to occur if the silt content was increased to 19% (with 90% suppression factor) or if the suppression factor was reduced to 75% (with 8.4% silt content). This illustrates the importance of basing the modelling on appropriate assumptions.

120. MTAN2 advises that the "Western Surface Coal Mining" part of the USEPA document AP42, Compilation of Air Pollutant Emission Factors, should be used to calculate emission factors for input to a dispersion model even though this was derived from studies in the Western USA where the climate is very different to that in Wales. AP42 advises that data on silt content should be gathered locally if at all possible and clearly contemplates tests being carried out on the parent soil where an unpaved road is to be provided. The Appellant's assertion that the silt content can only be assessed once a road has been constructed is clearly at odds with this advice. The Appellant has recently undertaken additional boreholes on the site at short notice and has no excuse for failing to provide silt content information from the Varteg site itself. Its reliance on the USA data introduces significant uncertainty into the calculation of emission factors.

121. The modelling was carried out using an average figure of 8.4% from the relevant AP42 table (see page 13.2.2-3 of AP42 extract at Document 28.1), though the range for "Western surface coal mining" "haul road to/from pit" data varies from 2.8% to 18%. Although Dr Collins said this was normal practice, the range of data is wide and use of an average figure is not robust or precautionary. In addition, no account has been taken of the range of silt contents in the table relating to freshly graded haul roads. This is shown as ranging from 18% to 29%. The 19% silt content needed for the model to predict breaches of the MTAN2 nuisance dust limit lies at the bottom of this range, indicating breaches would be perfectly possible whenever the road was regraded (estimated by the Appellant at about every 2 months).

122. The Appellant has counter-argued that there are similarities between the Varteg geology and that of Taconite mines in the USA (the AP42 table shows lower silt contents for these) and that sandstone would be used as part of the road surface at Varteg. However, these are of little consequence. Firstly, if AP42 data is to be used, MTAN2 (paragraph 145) is perfectly clear that it is the "Western surface coal mining" section that is to be used. Secondly, Taconite is an iron ore sedimentary formation which is different from that at Varteg. Thus comparison with silt content percentages associated with Taconite mining should be rejected.

123. With regard to the last minute suggestion that sandstone would be used as a road surface, this would face numerous difficulties. Firstly, it would not be immediately available and would have to be excavated over a period of time. Thus, at least initially, a sandstone haul road would not be available. Secondly, the road surface would be a mixture of sandstone and other material (as explained in the Appellant's note at Document 22.3), so the silt content would also be a mixture. Thirdly, it is not clear that the sandstone would be crushable by a bulldozer, and no assessment has been made of the effects of having a mechanical crusher/grader on the site. Further, even if sandstone were used, there is no evidence of what the silt content of the haul road would actually be. Overall, there is clearly considerable doubt about the silt content of the haul road.

124. The other main uncertainty in dust emission is the suppression factor. It has been assumed that mitigation measures would achieve 90% suppression but there is no evidence to support this assumption. Mention has been made of a University of Nottingham study (extract at Document 28.5) to support the 90% assumption. However, that study is of questionable status and merely says that a literature review shows that mitigation can be "up to 80% effective". The Appellant falls back on the assertion that 90% suppression has been accepted for use in other studies.

125. If 80% were the best that could be achieved, uncertainties with that and with the silt content indicate that unsatisfactory dust levels would be perfectly possible, and the Appellant's expert witness accepted that a breach of the MTAN2 limit could not be ruled out. Reliance cannot be placed on a model that has not been validated, whose accuracy is unknown and where the precautionary approach has not been adopted. It has not been demonstrated with any confidence that the MTAN2 limit would be met. Consequently, it would not be appropriate to impose a condition requiring it to be met.

126. The conclusion has to be that the scheme would not protect residential amenity and would be contrary to Local Plan Policy G1. This should be accorded considerable weight in balancing the benefits and disbenefits of the scheme.

Benefits of Scheme (Documents 20 & 51)

127. In the light of conflicts with the development plan in respect of noise and dust and the significant impacts on residential amenity in Varteg, MPPW (paragraph 62) and MTAN2 (paragraph 169) state that planning permission should only be granted if the local and community benefits clearly outweigh these conflicts and impacts.

128. It is not disputed the scheme would bring some public benefits. It would assist in meeting the national need for coal, though its contribution would be relatively minor. Its production of about 100,000 tonnes per year would be small in the context of an annual demand of about 6m tonnes per year in Wales alone. Furthermore, this cannot be seen as a "local or community benefit".

129. The reclamation of derelict land and the improvement of the site are encouraged by Structure Plan policies L1 and L2 and would bring local and community benefits. However, the objectives of these policies could be met in other ways. Neither policy requires the improvements to be achieved through coal reclamation, and supporting paragraph 10.3 explains there will be increasing emphasis on small urban sites rather

than major reshaping of landscapes. There is no policy imperative for such a large scale scheme and, as alternative smaller scale works could be carried out to achieve some of the aims, policies L1 and L2 should be given little weight.

130. It is accepted the scheme would result in the creation of some jobs. However, these would only be for a temporary period and would not necessarily go to local people. Thus there is no evidence of local or community benefit in this respect. Finally, mention has been made of the housing scheme recently granted planning permission on appeal (Ref. APP/V6945/A/11/2135158) on land adjacent to the appeal site (effectively to the same Appellants). It is reported that the developer would not start building those houses until the opencast coal work was completed, and the Appellant argues that this is an illustration of the regenerative benefits of the current appeal scheme. On the contrary, it indicates concern about effects on the amenity of future occupants if those houses were built before the opencast coal works. There is no formal link between the schemes, and the appeal scheme does not result in the regeneration of Varteg through the provision of the housing scheme.

131. Overall, the local and community benefits are not of such weight as to clearly outweigh the conflicts with development plan policy and the significant impacts on residential amenity. Thus the scheme would conflict with national policy in MPPW and MTAN2, and planning permission should not be granted.

Buffer Zone Requirement (Documents 19.1, 19.2, 20 & 51)

132. MPPW recognises that there is often conflict between mineral workings and other land uses due to the environmental impacts of mineral extraction and processing and refers to the use of buffer zones around mineral sites to minimise these impacts. MTAN2 gives a more formal definition to this policy, stating in paragraph 29 that coal working will not generally be acceptable within 500 metres of settlements, in paragraph 32 that buffer zones should be shown on development plan proposals maps as 500 m around the site boundary unless there are exceptional circumstances, and in paragraph 49 that coal working may exceptionally be permitted within 500 m of settlements. Paragraph 49 also lists examples of factors to be considered in an assessment of exceptional circumstances.

133. It is clear from this policy guidance that the distance of 500 metres from the site boundary is considered by the Welsh Government to strike an appropriate balance between the need to protect residential amenity and the need to find sites to meet the need for coal. Within that distance environmental effects are likely to be unacceptable unless there are exceptional circumstances. Thus the onus is on the Appellant to demonstrate exceptional circumstances in order to justify works closer to the settlement.

134. The Appellant argues that 3 of the exceptional circumstances listed in MTAN2 paragraph 49 would be met:

- *"where coal working provides the most effective solution to prevent risks to health and safety arising from previous mineral working;*
- *to remediate land damaged by shallow coal workings or mineral waste, where coal extraction appears to be the most sustainable option; and*

- *when the proposal is of overriding significance for regeneration, employment and economy in the local area."*

135. The first 2 of these require consideration of alternative solutions, and the reason for this is clear. If a community is to be asked to bear adverse impacts on residential amenity in pursuit of wider public benefits it can only be justified if it is the best scheme that comes forward, i.e. the scheme that maximises the benefits and minimises the impacts on residential amenity. This approach is consistent with the principles established in paragraph 62 of MPPW. It is for the Appellant to demonstrate that the proposed scheme is the best option.

136. In this case the Appellant has not conducted any blank sheet appraisal of options, and the site boundary was defined well before any appraisal of health and safety risks was carried out. Details of old mine adits and shafts were not taken into account in the original formulation of the scheme, and there is no evidence that an appraisal of how these problems could be best addressed whilst minimising impacts on residential amenity has ever been carried out. Rather than being driven by health and safety and reclamation objectives, it is clear this scheme has been designed solely to maximise the financial return. On this basis alone, the only proper conclusion is that exceptional circumstances cannot be made out. Allowing a developer to ignore the requirement for alternative options to be appraised would drive a coach and horses through this part of national policy.

137. Looking in more detail at each of the 3 alleged exceptional circumstances, the first comprises 2 elements: there are risks to health and safety arising from previous mineral workings; and coal working provides the most effective solution to prevent these risks. It is accepted that the risks exist: firstly, there are small risks to the public in relation to the tip; secondly, there are limited risks associated with unauthorised entry into disused mines on the site; and thirdly, there are risks in relation to collapsed ground associated with the disused mines. However, it is not accepted that coal working is the most effective solution to these risks.

138. The Appellant has failed to consider alternative ways of dealing with these risks. Although it is not up to the Council to investigate alternative options, the Council has suggested several relatively small scale schemes that would adequately address these health and safety risks. The first would involve re-profiling of the tip face, infill of the erosion gullies and the construction of drainage measures to improve the stability of the tip face at a cost of about £25,000. The second would involve more extensive re-profiling of the whole tip as a balanced cut-and-fill operation at a cost of about £47,000. In addition, either of these could be supplemented by backfilling areas of shallow working collapses elsewhere on the site. The Appellant has questioned the costs of these schemes. However, the additional costs suggested would still not be significant.

139. The environmental and amenity impacts of these possible alternatives have not been investigated but that should be a matter for the Appellant to assess rather than the Council. However, the limited appraisal carried out by the Council has demonstrated that the more extensive coal working scheme is not justified in order to "prevent risks to health and safety", as provided for by the first "exceptional circumstances" factor.

140. It has been suggested that there would be no incentive for the more limited health and safety works to be carried out, and clearly there would be no profit in them. However, a responsible land owner should take immediate steps to ensure the health and safety of the public is adequately safeguarded, particularly as the land is subject to open access by the public. Similar works were recommended by consultants Halcrow in 1979 but nothing has yet been done on this site.

141. It is clear there are low-cost alternative solutions to the health and safety risks on the site and that a coal working scheme is not the most effective solution. Thus health and safety considerations do not justify intrusion into the 500 m buffer zone.

142. Turning to the second "exceptional circumstances", there are 3 factors: the extent of the land damaged by former shallow coal workings or mine waste; whether the proposed scheme would remediate the extent of that damaged land; and whether the proposed coaling scheme "appears to be the most sustainable option".

143. Again, this requires the consideration of alternatives, which has not been done. There is no evidence of any blank sheet appraisal of how best to remediate the land with a view to maximising remediation whilst minimising impacts. The remediation scheme was not developed until after the site boundary had been defined, and there was no consideration of wider or reduced land options. Whilst the scheme now under consideration would produce approximately 256,000 tonnes of coal, it has been agreed between the expert witnesses that a scheme producing as little as 180,000 tonnes would still be financially viable (see agreed Position Statement at Document 30.5).

144. Clearly, the Appellant has failed to show that the proposed scheme would be the most sustainable option for remediation of the damaged land. Thus "exceptional circumstances" have not been shown on this matter.

145. The third factor claimed is "overriding significance for regeneration, employment and economy in the local area", which has been dealt with in the Benefits section above. It is concluded that any benefits would be limited and would certainly not be of "overriding significance".

146. It follows from the above that none of the exceptional circumstances listed in MTAN2 paragraph 49 would be made out individually. It is also considered that, even taken as a whole, the circumstances cannot be seen to be exceptional. It is acknowledged that the scheme would address health and safety issues to an extent and would lead to reclamation of derelict land and to some employment opportunities. However, policy requires that the scheme be the best option in terms of maximising benefits and minimising impacts, and this has not been shown.

147. The local community has a right to expect that any scheme permitted would have the most limited effects on it. The appeal should be refused to allow the Appellant to carry out a proper appraisal of the alternative options. It is acknowledged by the Appellant that the current scheme would be unusually profitable, and it is likely that an alternative profitable scheme could be identified with similar benefits but less impact on the amenity of the local community. The further delay involved while this is done is not a matter that should be given weight in this appeal. If the appeal were allowed it

would enable the Appellant to benefit from its own failure to fully appraise the alternative options as required by national policy.

148. In conclusion, the scheme would be contrary to national policy in MPPW and MTAN2 relating to buffer zones.

Sterilisation of Mineral Reserve (Document 51)

149. The amended appeal scheme results in the sterilisation of some 75,000 tonnes of coal reserve along the western edge of the site where a 10 metre width of coal working was lost in order to address stability concerns for the western wall when it was found the hillside was overlain by fill material from previous opencast works. The western face was moved by 10 metres in order to deal with the stability problem within the boundary of the application site. In this respect the proposal would be contrary to Structure Plan Policy M2, which aims to avoid the sterilisation of mineral resources as far as practicable.

Overall Conclusion (Documents 20 & 51)

150. The scheme would have widespread adverse impacts on the amenity of the community of Varteg in respect of noise and dust. Thus it would conflict with development plan and national policy. The benefits it would bring would not be of sufficient weigh to clearly outweigh the policy conflict and harm to amenity.

151. Restoration of the site does not require the scale and length of operations proposed, and alternative schemes to address the health and safety and land reclamation aims whilst minimising impacts on the local community have not been properly appraised. Instead, the Appellant has been focused on the pursuit of profit.

152. The scheme would be contrary to Welsh Government policy where there is a clear presumption against approval of a scheme with a buffer of less than 500 metres between its boundary and a settlement. There are no exceptional circumstances to override this presumption and to justify allowing coal working within 500 metres of the settlement.

Case for the Pentwyn Against Opencast Group

The material points are:

Effects on Health (Documents 33.1, 34.1, 34.6 & 38)

153. The issue of dust pollution from airborne particles has been the subject of extensive research. It has been established that it is the very fine particulate matter, $PM_{2.5}$, that is the most critical to health, particularly cancer, cardiovascular and pulmonary disease. Studies have shown that fine particulate matter can travel several miles under certain climatic conditions. Thus any buffer should be drawn at about 5 km (3 miles) rather than 500 metres, and this opencast scheme should certainly not be permitted so close to residential properties and a primary school.

154. The EC Directive 2008/50/EC, on ambient air quality and cleaner air for Europe, has recognised the need to reduce fine particle concentrations as much as possible and to set a limit value which reduces to 20 $\mu g/m^3$ by 2010. The Appellant's November 2011

Dust Assessment still refers to the old limit of 40 μg/m^3, and the lower limit needs to be taken into account. Whilst 20 μg/m^3 is the limit value adopted for fine particulate matter in Wales, it should also be borne in mind that the United States guideline value is 15 μg/m^3 and the WHO guideline is 10 μg/m^3.

155. Whilst the Appellant's Dust Assessment indicates levels below the required standard, the methodology is open to considerable inaccuracy, and much higher levels are likely to occur. There is also considerable doubt about the effectiveness of methods used to reduce dust incidence on the site.

156. The Dust Assessment itself is based on methodology and data from the USEPA guidance document AP42 and meteorological data from weather stations in South Wales. Rainfall data from 2009 was used as it was found to be the year with the least wet days. However, 2010 data shows fewer wet days and would provide slightly worse results (Document 34.3). AP42 recommends that local data on the silt content of the haul road material be used if possible. However, no local data has been collected, and the Appellant has relied on statistical data for opencast coalmines in western USA, which has the potential to be subject to considerable error, especially when used in an area with quite different climatic conditions.

157. The assessment has been based on an average silt content of 8.4%. However, the range of values on which that average is based is as high as 18%, and the document also refers to freshly graded haul roads having silt contents as high as 24%, which is almost 3 times the 8.4% value used. In addition, the assessment seems to have used a particle size multiplier of 15%. However, that AP42 value was based on a review in 2006 (Document 34.4), and a more recent review in 2011 advised this should be changed to 25%. It is also noted the AP42 methodology is based on an assumed vehicle weight that is different from that of vehicles likely to be used at Varteg, and it is not known what effect this would have on the results of the modelling. If more conservative factors were used in the AP42 equations considerably higher dust values would be obtained, and the limit value would be more likely to be exceeded. It follows that no confidence can be had in the results of the dust assessment carried out by the Appellant.

158. Experience at other opencast coal sites gives a clear indication that considerable dust is generated and becomes airborne. Official dust monitoring elsewhere is often of questionable reliability. At Varteg it is likely the harmful dust emissions would travel well beyond 500 metres and would cause an increased level of asthma in children at the school, exacerbation of cardiac disease in adults and acceleration of lung-related disorders.

159. In addition to dust from the coal and other excavated materials, plant emissions also generate fine particulate matter which may include heavy metals and poly-aromatic hydrocarbon (PAH) contaminants that can cause inflammation of the lungs, heart attacks, strokes and long-term cancers. The fuel used in such plant is usually of substandard quality and can lead to harmful emissions equivalent to 900,000 cars.

160. Reference has been made by Mr Coghill to extensive research into the incidence and health effects of dust. Particular attention is drawn to the following scientific papers and reports:

- the Glynneath study by Temple and Sykes in 1983 which reported an increased incidence of asthma in children when opencast coal operations were undertaken nearby (Document 33.6);
- the Newcastle University study in 1986-87 which (on closer inspection) found increased GP consultations for children suffering respiratory, eye and skin diseases living near opencast coal workings (Document 33.7);
- a study in Xuanwei, China, reported in 2011, which found increased risk of lung cancer in deep coal mine workers (Document 33.9);
- a study into work-related risk factors of myocardial infarction by Bortkiewicz et al in Poland in 2010, which found the main contributors to increased risk to be stress, noise and dust (Document 33.8);
- work by Pope in the USA which found that both particle size and its composition to be important factors in the pulmonary inflammation response to fine particulate dust (Document 33.5);
- a Health Impact Assessment for the Apheis network on the benefits of reducing $PM_{2.5}$ in 26 European cities, which showed a reduction in premature deaths.

161. Dr Van Steenis drew attention to many other research and study results. Particular mention was made of the following: increased incidences of asthma in children near opencast sites in north east Derbyshire and at Gwaun Cae Gurwen, near Ammanford; increased hospital admissions for asthma in Lanarkshire and the Tinsley area near opencast sites; extremely high levels of $PM_{2.5}$ recorded near several major construction sites; increased deaths and lung damage near opencast works in New South Wales, Australia; lung damage experienced by opencast workers in the USA; and increased chronic obstructory pulmonary disease (COPD) at Douglasdale in Scotland. Some 360 references to scientific papers were attached to Dr Van Steenis' statement (Document 38) under headings: fine particulates; cancers; hazardous waste; dietary factors; virus and chemical factors including vaccine and autism; death data; and pesticides, herbicides and GM genes.

162. Dr Van Steenis alleges that the Council and the Public Health Authorities have no expertise in medicine and toxicology and so are unable to properly assess the health risks associated with opencast coal mining. In addition, the Government advisory committee on air quality standards, COMEAP, has not taken into account the most up to date references and is limited by conflicts of interest. He also alleges that the Newcastle University study was subject to poor protocol and methodology and to deliberately misleading interpretation of its results.

163. Finally, brief mention is made of the health effects of excessive noise, particularly that from heavy lorries passing along narrow roads close to houses and pedestrians on the adjoining footway. Mr Coghill refers to 3 scientific papers that report the effects of noise on health: a study by Goswami et al in India, which observed alterations in

physical, psychological and personal aspects due to traffic noise (Document 33.2); a study by Bluhm et al in Sweden, which attributed increased risk of cardiovascular disease to traffic noise (Document 33.3); and a paper by Bortkiewicz et al in Poland, which found noise to be one of the main work-related risk factors in myocardial infarction (Document 33.8).

164. The possible effects of noise on health have not been addressed in the Appellant's assessments and should warrant further investigation. In particular, the heavy lorries would give rise to high levels of noise as they pass along the narrow roads in Blaenavon.

Effects on Amenity (Documents 34.1, 34.6 & 36.1)

165. The main effects on the amenity of the local community are in respect of nuisance dust and noise. Although the Appellant's dust assessment indicates nuisance dust levels would be acceptable, this is based on modelling of dust emissions and dispersion that relies on a range of assumptions on weather, haul road material silt content, particle size proportions and the effectiveness of suppression measures. As explained above in connection with health effects, these factors can vary over a considerable range and little confidence can be placed on the results of the assessment.

166. It is likely nearby houses and gardens would experience unacceptable levels of black dust, which would soil their washing, give rise to additional cleaning and make it impossible to sit outside in the garden in good weather. The current opencast work at Ffos-y-fran, near Merthyr Tydfil, causes terrible noise, dust and pollution problems for residents who live close to the site.

Ecological Effects (Documents 35.1-35.4 & 37.1-37.3)

167. The proposed scheme would have detrimental effects on an important mosaic of habitats, particularly in the Western Valley which, contrary to the Appellant's claims, has never been subject to disturbance for opencast operations. Although Coal Authority maps show the valley to be included within an opencast area, such maps are not always correct as they may be based on permissions granted but never implemented. The Coal Authority's limited resources do not always allow these maps to be properly checked. Physical features on the ground indicate there has not been any disturbance for hundreds of years. Consequently, use of the Western Valley as a permanent tip for waste material from the Varteg scheme would cause the loss of original habitats in that area.

168. The first physical feature is a scour, scour leat and dam used in the nineteenth century to identify the presence of valuable minerals (see photographs in Document 35.1). The method was devised by the Romans and used a flood of water to scour away the surface materials and expose shallow veins of minerals. This is a piece of industrial archaeology that shows the western side of the valley has not been disturbed by more recent opencast coal operations. A local professional archaeologist has been consulted and he agrees with this interpretation (see his email to the Glamorgan Gwent Archaeological Trust, the Council's consultee, in Document 35.2). There is also a large slab of ironstone along the base of the leat, which has clearly never been moved or

broken, and which further confirms this part of the valley has never been disturbed by opencast working.

169. The second physical feature is the presence of large areas of lichen on large stones in several locations in the Western Valley. Lichen is very slow growing and very sensitive to pollution. Lichenometry is the technique of estimating the age of a deposit based on the size and type of lichen growing there. In this case, the size of the growths indicate they have not been disturbed for many centuries, and they may be compared with more recent (and smaller) growths near the former Waun Hoskyn opencast site (see photographs in Document 35.1). This further confirms that the Western Valley (and its ecology) has not been disturbed for many years.

170. Attempts have been made to resolve the difference of opinion on opencast working in the Western Valley with the Appellant's expert, but without success. He continues to refer to Coal Authority maps, which are quite inconclusive and difficult to interpret as to whether references are to opencast or deep mining. It appears he may be taking markings of underground working to refer to opencast work. (Document 35.4)

171. If one accepts that the Western Valley has not been disturbed by previous opencast workings or waste deposits, then the tipping of waste there from the appeal scheme should not be permitted. It would disturb a long-established natural set of habitats that would take hundreds of years to re-establish. The valley is also subject to common land and open access rights, which would be disrupted for a considerable period of time. Either the waste material should be deposited elsewhere or the scheme as a whole should not be permitted.

172. Turning to more specific ecological effects, the importance of the lichen itself should not be overlooked. Eight nationally scarce species of lichen have been identified on the site and one un-named species not known anywhere else in the World. The Appellant intends to pick up and move the rocks with significant lichen growths on them, store them safely over the course of the work, and return them to the site as part of the planned restoration works. It is doubtful whether this would be successful as lichen are particularly sensitive to changes in their environment or to pollution. Document 37.3 contains numerous photographs of the lichen on the site and illustrates the extent of damage likely to be caused.

173. Much of the site is designated as a Site of Importance for Nature Conservation (SINC), indicating its local importance for biodiversity. It contains a wide range of habitats and species, which would be lost, or at best severely disrupted, by the proposed scheme. The scheme would destroy a diverse breeding bird community, cause loss of important habitat for dragonflies and destroy a species of rare plant. The scheme would cause an unacceptable loss of biodiversity. In addition, the Blorenge Site of Special Scientific Interest (SSSI) lies 2 km to the east, and the Coity mountain ridge, adjacent to the site, is a candidate SSSI. There is a risk the scheme might affect these sensitive areas.

174. Surveys have shown that red grouse, red kite, sparrow hawk, buzzard, and common snipe use parts of the site for breeding and that long-eared owl, merlin, peregrine falcon and hobby use the site for foraging. 14 different dragonfly species have been recorded on the site, and adders are recorded on the re-vegetated tips. The

Appellant's own Ecological Assessment (Document 5.4) says at paragraph 5.21.1 *"Overall, this large land reclamation scheme will result in a whole range of residual impacts on biodiversity, ranging from those of moderate positive significance to those of major negative significance. The site contains a diverse range of habitats and species, many of notable quality within the local area and some of regional importance. Those worst affected are typically wetland habitats and associated species (such as dragonflies), together with sensitive bird, butterfly and moth species."*

175. The impacts on diversity may be summarised as follows:

- destruction of a wide range of habitats of national, regional and local importance;
- loss of a diverse breeding bird community, including species of conservation concerns;
- loss of habitat for 14 species of dragonflies and damselflies, including a nationally scarce species, the blue-tailed damselfly;
- reduction in the population of common lizards, with one third of the best habitat for the species within the site being lost;
- loss of the partially vegetated tip habitat of the grayling butterfly, a NERC Act section 42 species (Natural Environment and Rural Communities Act 2006);
- loss of the wetland feature habitat of the small pearl-bordered fritillary butterfly, a Torfaen Local Biodiversity Action Plan species;
- loss of the habitat of 8 lichen species considered nationally scarce and of 6 mosses that are rare in Gwent;
- loss of habitat in the immediate vicinity of *Taraxacum breconense*, a dandelion species found nowhere in the World other than in a small part of South Wales, with the Varteg site being one of only two sites in Gwent where it can be found; and
- destruction of a habitat of a previously un-named lichen species of the genus *Psoroglaena*, not known anywhere else in the World.

176. Many other species of animals and birds have been identified on the site, and a mosaic of habitats support a high biodiversity. The proposed development would destroy extensive areas of this and would result in a loss of biodiversity that no amount of restoration work could reverse. Many years of colonisation of the mine wastes would be wiped out, and the natural environment and local communities would be deprived of the current wealth of wildlife for the foreseeable future.

Traffic (Document 36.1)

177. The junction of the site access track with the B4246 road has poor visibility and is not suitable for the number of traffic movements envisaged. The road between Varteg and Blaenavon is too narrow for 2 HGVs to pass each other and is a busy road with regular buses and other large vehicles. The extra volume of HGV traffic would compromise the bus timetable and increase the risk of accidents along this stretch of sub-standard road.

178. The route for transporting the coal would be the same as that for the Johnson mine, and combined usage would amount to 12 HGVs per hour, equivalent to 390 vehicles per 5½ day week. The main road through Blaenavon would become a dangerous rat-run, and the resultant traffic congestion and pollution would seriously affect the town, which is a World Heritage Site.

Effects on Local Economy (Document 36.1)

179. The proposed scheme would seriously affect the primary school and could lead to loss of pupils, with associated loss of teaching posts, and even the possibility the school might close. The 20 jobs created on the site would not compensate for this and would probably not involve local workers. Local businesses would suffer as visitors would not wish to come to an area blighted by a dirty opencast mine. Local tourism would be ruined.

180. In Blaenavon the heavy traffic would cause vibration to the detriment of the roads and historic buildings alongside them and would have a detrimental effect on local trade. Throughout the area as a whole people's homes would be devalued, jobs would be lost as the local economy is affected, and local farming stock would be affected by health problems.

Other Matters (Document 36.1)

181. The opencast work would expose past mine workings and could cause acid mine drainage to contaminate the immediate aquifer. Insufficient safeguards would be put in place to avoid possible water contamination, and the Appellant's survey may not have adequately taken into account the risks of exacerbating drainage and flooding problems in areas nearby.

182. The northern part of the site is within the Blaenavon World Heritage Industrial Landscape, and the area as a whole is popular with walkers and ramblers. The proposed scheme would close public rights of way across the site for several years, and the high overburden mound would be a huge blot on the landscape, which would deter visitors from outside the area from ever returning again. The Appellant's Environmental Statement has not sufficiently taken into account the important historic landscape, including the ancient scour, scour leat and shallow dam feature in the western valley.

Case for the No Opencast at Varteg Campaign

The material points are:

General (Document 39)

183. The No Campaign's main concerns are adverse effects on Ysgol Bryn Onnen due to dust and noise and adverse effects on Blaenavon due to the additional heavy lorry traffic along its narrow streets. These matters are considered in detail below.

184. Paragraph 137 of MTAN2 says *"there is no known safe level of exposure to particulate matter"* and *"the balance of evidence suggests that it is the combustion-derived components of PM_{10}, rather than particles from natural sources, that are primarily responsible for harmful effects"*. It also says *"exposure can lead to impacts ranging from minor effects on the respiratory system to premature mortality"*. There

are a considerable number of houses and a primary school close to the site, and they will be subject to the health risks of fine particulate matter generated by the opencast working.

185. Photographs of plant working at Ffos-y-fran, Merthyr Tydfil, show clouds of dust at the work face, and other photographs provided by a local resident show dust deposited on cars and window sills. The dust suppression measures are clearly not effective, especially at the face where the large plant are working.

186. Ysgol Bryn Onnen has sought advice from the National Public Health Service for Wales (NPHSW), which has reviewed the Health Impact Assessment undertaken by the Appellant. This independent review was submitted to the Council on 21 September 2009 (Document 42.4), and the covering letter advised *"In particular I am concerned about the physical, social and psychological effects on the children, staff and families connected with Ysgol Bryn Onnen which lies extremely close (approximately 100 metres) to the site boundary"*. However, these concerns also apply to the local residents. Whilst the direct health effects have been subject to particular scrutiny, the NPHSW also drew attention to the psychological effects of stress and anxiety on people affected by the scheme and recommended further work should be done into the effects on mental health. Little attention has been given to this so far.

187. Turning to benefits of the scheme, a local resident with expertise in economic appraisal has provided advice on financial and economic issues (letter from Professor Prowse dated 30 September 2011 at Document 42.2). Economic benefits to the community would be quite limited: 20 jobs for a period of up to 4 years, which would not necessarily go to people in the local community; and no known particular intention to purchase goods and services from local companies. On the other hand, economic costs would include: health and wellbeing impacts due to noise and air pollution; educational impacts on children attending the school; time lost to traffic congestion; and impacts of environmental damage on future economic development prospects in the area. It is concluded that the potential economic benefits would be far outweighed by the economic costs.

Policy Conflict (Documents 41.1 & 41.2)

188. MPPW and MTAN2 provide national policy and guidance on coal mining development. MTAN2 is much more recent than MPPW and can be taken to represent the Welsh Government's most up to date policy position. It introduces the 500 metres buffer zone, which if applied strictly, would put the entire opencast area out of bounds. There are some 80 properties and a primary school within 250 metres of the site and double that number of houses within 500 metres.

189. MTAN2 paragraph 49 makes provision for coal working to be permitted within 500 metres of settlements in exceptional circumstances, and the Appellant argues that 3 of the factors listed are applicable to this proposal: *"where coal working provides the most effective solution to prevent risks to health and safety arising from previous mineral workings"*; *"to remediate land damaged by shallow coal workings or mine waste, where coal extraction appears to be the most sustainable option"*, and *"when the proposal is of overriding significance for regeneration, employment and economy in the local area"*. None of these represent exceptional circumstances in this case.

190. The first 2 factors would apply if the land was in such a poor state that major remediation is needed and simple earthmoving would not suffice. However, no attempt has been made to demonstrate that the proposed scheme is *"the most effective solution"* or *"appears to be the most sustainable option"*. Thus these factors are not exceptional. So far as the third factor is concerned, the restored area would be used for poor quality grazing land rather than any more valuable development purpose. Some time ago the Appellants offered to make financial contributions towards local community benefits. However, such an offer of money would make no difference to whether or not exceptional circumstances were to exist. There would be little benefit towards regeneration of the area and certainly no exceptional benefits. Thus the Welsh Government policy for a 500 metres buffer zone is not overridden by any exceptional circumstances.

191. Another site nearby, The British, has been the subject of a similar proposal for a coal recovery and land reclamation scheme, and negotiations have taken place to safeguard local amenity and achieve maximum benefits. However, if the Varteg scheme were allowed to take place so far within the 500 metres buffer zone, the balance of arguments for a scheme at The British would move substantially in favour of the developer to the detriment of the local community. Indeed, if it is concluded that the Varteg scheme meets the exceptional circumstances test in MTAN2 to justify work within 500 metres of a settlement, then many other opencast coal schemes would meet them too. The circumstances at Varteg are not unusual.

192. Paragraph 50 of MTAN2 says *"Where such exceptions justify working within 500 metres of a settlement, the area of working should be restricted to the area reasonably necessary for remediation"* and *"strong evidence of the necessity for remediation, including the evaluation of options, is required to justify working within 200 metres of a settlement, and the social and environmental impacts on the affected settlement must be carefully weighed"*. In this case, Pembroke Place, Pembroke Terrace and Salisbury Terrace are within 100 metres of the site boundary, so even stronger justification is required.

193. Finally, MTAN2 paragraphs 68 and 69 advocate discussions with the local community about proposed projects (in order to avoid or minimise impacts) and local community participation in the application process, Health Impact Assessment and future monitoring work. Although several public meetings have been held, there has been no opportunity for the community to play any active part in these matters, as envisaged in MTAN2. The Health Impact Assessment has been little more than a paper exercise.

Impact on Ysgol Bryn Onnen (Document 42.1)

194. Ysgol Bryn Onnen is a Welsh medium primary school serving the north of the County. It started 17 years ago with 90 pupils and now has 260 pupils between the ages of 3 and 11. It serves infant and junior stages, and has recently introduced a new nursery stage. Its original buildings date from 1901 but a new block of 4 classrooms was added at the rear in 2002, and capacity has been supplemented by a temporary prefabricated building at the side of the original (see photograph in Document 42.1).

195. Although the main playground areas are at the rear, the Foundation Phase yard is at the front facing towards the appeal site. The Foundation Education System, introduced for the nursery class with the support of the Education Authority, places particular emphasis on outdoor activities and 55% of those children's time is spent outside, equivalent to 570 hours per year. It is these very young children who would be placed at most risk if the opencast scheme were to go ahead.

196. The school's main concerns are about the health effects of dust and disturbance to teaching by noise. The risk assessments carried out for these indicate relatively high levels for both at the school site, which is close to the south-eastern boundary of the site (see map in Document 42.1). The distance between the school boundary and the site boundary is only about 80 metres. MTAN2 advises that levels of particulate matter, PM_{10}, should be considered up to 1000 metres from an opencast site, and various other witnesses have referred to studies carried out elsewhere on the effects of opencast coal mining on health. The Glynneath study particularly considered effects of dust on children living near opencast coal workings.

197. The School has consulted its parents and they have expressed particular concern. Over 200 have signed a parent-driven petition opposing the scheme (Document 42.3), some whose children already suffer respiratory problems have been quite distressed, and some say they will take their children away from the school if the scheme goes ahead. The National Public Health Service for Wales has reviewed the Appellant's Health Impact Assessment and one of its recommendations was that particular attention should be given to mental health effects, particularly stress and anxiety about the scheme (Document 42.4). Clearly that is particularly relevant to parents concerned about the health and wellbeing of their small children.

198. Noise levels are important for conditions conducive to good education. 98% of pupils are from English-speaking families, and speech perception is a vital element in learning Welsh. It is important that noise levels in the classrooms are sufficiently low, and the School is concerned that the temporary prefabricated classroom building may not have sufficient sound insulation to exclude the site noise. Even external noise levels are important for the Foundation Phase education.

199. Children are particularly susceptible to health risks from dust and noise. Even if the various standards would be met, it should be taken into account that these are likely to be set to safeguard ordinary people. More vulnerable groups, such as children, may be less able to cope with even those levels.

200. It has been mentioned above that some parents say they will take their children away from the school if the scheme goes ahead. That could threaten the viability of the school. Less pupils would have to be reflected in less teachers and support staff, and jobs would be lost.

201. Finally, it is noted that Planning Policy Wales describes several principles that underpin planning policy. One of those is *"putting people and their quality of life at the centre of decision making"*; that includes children. The Health Impact Assessment also makes reference to the precautionary principle, and that is also an important consideration. If those principles are to be followed here the appeal should be dismissed.

Traffic through Blaenavon (Documents 40.1 & 43)

202. Coal from the site would be hauled by lorry through Blaenavon and on to Brynmawr. The route along the B4246 and B4248 is substandard and often too narrow for 2 large vehicles to conveniently pass one another. Photographs are provided to illustrate the unsuitable nature of the route for this additional traffic.

203. Photograph 1 (see Document 40.2) shows the junction of the site entrance with the B4246. The road to Blaenavon is narrow and large vehicles run close to the edge of the carriageway (Photograph 2). The junction with Forge Side road is where coal lorries from the Johnson mine would join the route (Photograph 3). The road down into the town is steep and narrow (Photographs 4 & 5). It has a junction off it into a residential estate with limited visibility (Photographs 6 & 11) and a tall retaining wall alongside separating it from blocks of flats (Photographs 7, 8, 9 & 10). In icy weather the wall would provide little protection if a lorry ran out of control.

204. Moving further into the town, Photograph 12 shows a typical wing mirror arrangement for an HGV, and when a lorry run close to the edge of the carriageway its side mirror overhangs the pedestrian footway and could hit a pedestrian (Photograph 13). The roads in the town are narrow, and lorries would inevitably have to run very close to the kerb and footway (Photographs 14, 16 & 18). If 2 large vehicles meet at some points there is no choice but to run on to the pedestrian footway (Photograph 18, with the World Heritage Centre on the right hand side of the road). The road width outside the World Heritage Centre is only 5.3 metres, which is less than the width required to allow all vehicles to pass each other without passing places (see extract from Design Bulletin 32, Residential Roads and Footpaths Layout, at Document 40.3).

205. Photograph 15 shows the narrow road in the vicinity of the church, chapel and main supermarket, where congestion often occurs if cars are parked for funeral and other services. Photograph 17 is taken at the crossroads next to the main post office where many older people have expressed concern about crossing the road. Several of the photographs show how narrow the pedestrian footways are and that often the footway is only on one side of the road. The footway is very narrow outside the World Heritage Centre (Photograph 18) where many visitors have to walk, including groups of school children. Finally, Photograph 19 shows how close the road runs to many buildings in the town.

206. The increased HGV traffic generated by the proposed scheme would significantly increase the traffic problems in Blaenavon: congestion, highway and pedestrian safety, noise and air pollution. The roads are poorly equipped to deal with this traffic.

207. Blaenavon has been granted World Heritage Site status because of its industrial heritage, and this has given the town a lifeline to reverse many years of decline. The tourism industry is expanding and supporting some 120 jobs with nearly 200,000 visitors per year. The proposed opencast scheme would put at risk the economic regeneration of the town due to the environmental, health and traffic impacts the scheme would have on it.

Other Third Party Representations against the Proposal

208. In addition to the 2 Rule 6 parties, several other local residents and their representatives spoke at the public inquiry: Ms Lynne Neagle AM (also representing Mr Paul Murphy MP); Cllrs Stuart Evans and Gwyneira Clarke; Messrs David McLoy, Anthony Price and Ronald Phillips (local farmers, Members of Commoners' Association, and Members of Waunavon Environmental Protection Committee); Mrs Yvonne Balakrishnan, Ysgol Bryn Onnen Governor; and Dr Derek Pope, resident of Blaenavon.

The material points are:

Ms Lynne Neagle AM

209. Representations have been received from a large number of constituents and parents of primary school children, and the matter has been raised regularly at engagements in the community. The overwhelming majority of these have been opposed to the proposed scheme.

210. It is Welsh Government policy that opencast coal mining should not take place within 500 metres of a settlement other than in exceptional circumstances. A considerable number of houses and the primary school are much nearer to the site than this, and there are real concerns about health risks and traffic disruption, particularly in respect of children at the school.

211. Blaenavon is a World Heritage Site (WHS) and is close to the proposed opencast site. The additional HGV movements through the town are not compatible with WHS status. The proposed scheme is not in the best interests of the valley. There is no objection to the principle of opencast coal development but it needs to be subject to appropriate safeguards. In this case the benefits to be gained are insufficient to outweigh the negative effects of the development, particularly the effects of noise and dust on the local community.

Cllr Stuart Evans

212. There are 2 key concerns: effects on local health and amenity; and effects of traffic in Blaenavon. The opencast coal operations would generate high levels of dust which would present risks to health in Varteg, particularly to pupils at the primary school which is close to the site. A high level of concern has been expressed about asthma. Even communities further to the south, Talywain and Garndiffaith, would be affected by dust when the wind was in that direction.

213. Coal from the site would be transported by lorry along the B4246 road through Blaenavon. That road is sub-standard and approaches the town down a steep hill with several busy road junctions along it serving residential estates. In the centre of the town Church Road is narrow and busy with many pedestrians using the footway to access local services: post office, church, chapel, supermarket, etc.. The road then rises steadily up hill past the World Heritage Centre (WHC), where the narrow, single footway is used by many pedestrians to access the WHC and local services. This is a very narrow stretch of road for 2 HGVs to pass one another, and vehicles pose a high risk to pedestrian safety.

Cllr Gwyneira Clarke

214. The screening embankment would be large and very close to Pembroke Terrace (60 m to toe and 120 m to top) and would be a visual eyesore for the duration of the scheme. The operations would have a negative impact on the local community with particular concerns about noise, dust and general health and safety in connection with both the site operations and coal transportation. The site impinges on the heart of the local community and it is the local community that would be most affected. There are no exceptional circumstances to warrant setting aside the Welsh Government's policy that there should be a 500 metres buffer zone between opencast coal sites and adjoining settlements.

215. It is fair to say that there are mixed views amongst the residents of Varteg itself and that opposition to the scheme has mainly come from people who live outside the immediate area and from the governors and parents of pupils at the primary school. There has been no proper consultation on possible community benefits, though at one stage the Appellant offered financial contributions towards community projects, the school and individual local residents. Meetings have been held in the village but few local residents have attended, and it was a surprise to find a petition was submitted to the Council in support of the scheme. Mr Morgan has been consistent in his support for the scheme but other residents have also been consistent in their opposition.

216. Cllr Clarke made a speech to the Council when the planning application was considered on 17 January 2011 (attached to her letter to the Planning Inspectorate dated 30 August 2011). Whilst it expressed similar views to those presented at the Inquiry, it also included the following: *"I have listened very carefully to the views of some residents living in Varteg who believe the scheme should go ahead given the need for reclamation in the area, and many feel and rightly so, that no environmental improvements will ever be achieved in the community of Varteg, without this scheme gaining approval"*. In cross examination, Cllr Clarke confirmed she was still of the opinion that the community will never gain environmental improvements in the village if the scheme does not go ahead.

Mr David McLoy

217. The routing of coal lorries along the B4248 between Blaenavon and Brynmawr would affect a SUSTRANS cycle track crossing at Waunavon Road, about 5 km (3-4 miles) outside Blaenavon. The route is not suited to additional heavy lorry traffic. (See Document 44.1)

218. In Varteg itself the houses would be blighted by the effects of the opencast working due to the impacts on noise, dust and health. Previous experience of an opencast scheme near Llanelly Hill in the 1980s has given Mr McLoy an insight into the effects the scheme would have.

Mr Anthony Price

219. The scheme raises concerns for farmers with rights over the common land because the site boundary would form a funnel effect between the eastern and western parts of the site which would be a dead-end for sheep. Commoners are also concerned about

the possibility of operations extending outside the site boundaries and affecting the wider common, e.g. use of access routes across it or stationing of a stone crusher.

220. That boundary arrangement should be altered if the scheme goes ahead. The occupants of Blaenmelyn Farm, Mr & Mrs Penney, would be affected by diversion of their access road. The diverted route would be much steeper in places and could make access difficult in adverse weather. The existing access route should be reinstated as soon as possible.

Mr Ronald Phillips (Documents 44.1 & 44.2)

221. Mr Phillips reinforced and elaborated on the evidence presented by Mr Price. The Commoners Association is concerned about direct and indirect effects on common land in the area. In addition to the site boundary and access route matters raised by Mr Price, the Western Valley is currently used for gathering sheep from several directions, and any alternative method would take longer. There is no guarantee the valley would be made available again when the scheme was completed in 4 years time. The valley is also popular with ecologists as it contains a range of flora and fauna that have developed over recent years. Its disturbance now would be a retrograde step so far as this is concerned.

222. Mr & Mrs Penney of Blaenmelyn Farm have asked Mr Phillips to speak on their behalf (see letter at Document 44.3). As explained by Mr Price, they are concerned at the loss of the present access road as the proposed diverted route would not be as good. Maintenance of a usable access is vital for transportation of fodder, fertiliser and stock to and from their hill farm. In adverse weather conditions lorries may not be able to gain access along the diverted route. The existing access track is relatively level and is usable in all weather conditions, and there is no guarantee it would be reinstated after the reclamation work has been completed.

Mrs Yvonne Balakrishnan

223. Mrs Balakrishnan confirmed and reinforced the evidence presented by Rev Pearson under the umbrella of the No Campaign. The Schools' stance has not changed since Rev Pearson was Chair of Governors. Some additional information is provided.

224. There is a growing demand for Welsh-medium education, and the school has a much wider catchment area than most primary schools. A lot of children are brought to school by bus, including many along the B4246 road from Blaenavon. Applications for the reception class are oversubscribed for September 2012. Of its present 260 pupils 113 are below 7 in age and spend half of their time out of doors. The school has 29 staff. The school is concerned about dust, noise and traffic effects and about the possible impact on its school roll and viability if the opencast scheme led to pupils being removed from the school and deterred future pupils. The scheme would offer no benefits from the school's point of view.

Dr Derek Pope (Document 45.1)

225. Dr Pope has a background in toxicology and experience in medical research and product safety assessment. He raised questions on whether there is sufficient information to determine whether the proposal would impact on the health of the local

community. In early 2010 the Local Health Board assessed the scheme and did not formally object to it, subject to conditions being applied in respect of noise and wind blown dust. Since that time the Appellant has submitted the Addendum/Further Changes to the Environmental Statement in June 2010 and other additional assessments, which have provided considerably more information on dust and noise effects.

226. The WHIASU's (World Health Impact Assessment Support Unit) guide to assessing the health and wellbeing impacts of opencast mining (Document 45.6) provides a useful overview on these matters. The Appellant's noise impact modelling has been compared with standards prescribed in MTAN2 and indicates these standards would generally be met. However, there has not been a systematic consideration of possible health impacts.

227. Noise can have a range of impacts depending on its level and duration. For example, children's ability to accurately register what is being said to them can be affected by background noise. A WHO report in 2000 (Document 45.2) indicated that for a speech level of 50 dBA (equivalent to casual speech at about 1 m distance) interfering noise should not exceed 35 dBA, and even lower levels may be needed for vulnerable groups. The noise impact assessment indicates that noise levels at properties adjacent to the site would be unlikely to damage hearing but could give rise to other impacts such as learning in the school. Impacts of spikes in noise, such as a lorry passing, have not been considered.

228. The dust impact modelling has provided information on the expected levels of dust but nothing on its specific composition or size characteristics. These are critical to the assessment of health impact, and it is unfortunate no data has been provided for diesel exhaust emissions from the on-site equipment. The Appellant's modelling work indicates the various regulatory standards would be met but generally these represent a compromise between what is desirable and what is achievable. As Mr Coghill has noted, scientific knowledge moves on and the increasing knowledge forms a better basis for protecting human health. Exposure limits usually become more restrictive as knowledge increases, and the WHIASU document advises that there is no "safe level" of fine particulate air pollution (see page 39 of Document 45.6).

229. The same reference notes that diesel exhaust emissions make up the majority of ambient PM_{10} particles and, as they are considered to be a human carcinogen (see 1998 WHO International Agency for Research on Cancer (IARC) report at Document 45.5), they clearly warrant particular attention. The Appellant's modelling has been based on site equipment complying with regulatory standards reported by the manufacturer. These emission levels have reduced considerably over the past 20 years as more stringent emission controls have been applied (see data on European emission standards in Documents 45.3 & 45.4) and, at the very least, use of plant and equipment that meets all the latest emission standards should be conditioned.

230. It should be recognised that, in human health terms, if you do not know what you are being exposed to then you cannot know whether it presents a health risk. Thus the questions to be asked are: has sufficient information been provided to be able to make that assessment; and if there is a health risk, would sufficient and adequate control measures be provided? There is little known about the composition or characteristics of

the dust likely to be generated at Varteg. It is not likely to be the same as at other opencast sites where studies have been carried out, e.g. the Newcastle study. Furthermore, no consideration has been given to plant exhaust emissions.

231. The link between underground coal mining and health effects on miners is well known. Clearly, similar effects must not be imposed on an unsuspecting local community around an opencast coal site, particularly the young and the elderly who may have existing health issues. A balance has to be struck between what is desirable and achievable. Whilst compliance with guidance standards for exposure is a start, it cannot be used as the sole measure of effects on human health. Emission limits are continually being reduced and, where information is not available, the precautionary principle should apply, particularly when considering control conditions if the scheme were to go ahead. There can be no certainty in conclusions on possible health effects at Varteg.

Third Party Support for the Proposal

232. Mr John Morgan spoke in support of the proposed development. He lives on Pembroke Terrace and would be one of the closest residents to the site.

The material points are:

233. Local residents have been trying to get the hillside above Varteg cleared of the unsightly coal tips for many years but with no success. The scheme now proposed is the only opportunity likely to come forward that would achieve this as there is little prospect of the Council or any other body obtaining the necessary finance. At present the hillside is unsightly, polluted (as can be seen in run-off water) and has problems with drainage which is inconsistent, giving rise to run-off on to the roads on occasions and local accumulation of wet areas on others. The hillside has a sparse selection of mundane flora and fauna, and the proposed regeneration plan would provide positive opportunities for a much richer ecological environment as well as a much more visually attractive landscape.

234. In order to gain these long-term benefits most local residents would be prepared to put up with an element of disruption for the limited length of time involved. Notes of support from other residents of Pembroke Terrace and Salisbury Terrace have been provided (Document 46.3). It is noteworthy that none of the objectors to the scheme are local residents of Varteg. They all live much further away with concerns being essentially about effects on children at the primary school, coal lorries passing through Blaenavon or inherent objections in principle to opencast mining.

235. The impacts of noise and dust have been considered in great detail at the public inquiry. So far as dust is concerned, the Appellant would provide control measures to minimise its emission, and its assessment indicates acceptable levels would be achieved. As a local resident of over 30 years Mr Morgan is also aware that the prevailing wind direction on the site is towards the north-north-east, which would take any dust well away from the school, particularly as the work moves further northwards on the site.

236. Noise is unlikely to be a problem to local residents as the nearest houses, Pembroke Terrace, have little outdoor space on their western sides and face away from the site. Consequently, the residents do not sit outside their houses on the western (tip) side. The large bund planned would provide an effective sound barrier, and as site work moved northwards it would move further away from the school and the properties nearest to the site. The resulting noise levels would be fairly low and, even in rooms closest to the site, other internal and external sources of noise would be at similar levels (see The Decibel Scale at Document 46.2).

237. Mention has been made of fumes from vehicle and plant emissions. However, there are already many sources of these in the village and at the school. The B4246 passes between the site and the school and is subject to regular traffic, including buses running at 5 minute intervals. Most of the school children are transported to and from school by bus or in their parents' cars, often with engines left running as children get in and out and walk past other vehicles delivering children to the school. These have a far greater potential to cause harm to the health of the children than dust and fumes from the proposed opencast work.

238. As for traffic through Blaenavon, there can be no case for accepting other heavy traffic whilst arguing that coal lorries should not be allowed. It is up to the Highway Authority to make decisions about use of that route.

239. In conclusion, Varteg is presently an area of desolation and destruction and is entitled to the benefits of reclamation and restoration measures just as have already been enjoyed by many other communities, including Blaenavon. It is not acceptable to let the eyesores of the past century remain. The scheme now proposed is the only way this is likely to be achieved in the foreseeable future, and the local community would prefer to accept 3-4 years of opencast work than leave the dereliction as it is.

Other Written Representations

240. Many other residents of the area, parents of pupils at the school and local representatives have submitted letters either to the Planning Inspectorate or to the Council but did not appear at the public inquiry (see bundles of letters in Documents 47 and 3.2 respectively). In addition, petitions were submitted to the Council both opposing and supporting the proposed scheme (see Document 3.3). These do not raise any relevant matters not already adequately covered in the cases reported above, and no benefit would be gained by repeating them.

Conditions and S106 Undertaking

241. The S106 Undertaking (Document 48.1) was explained at the Inquiry, and discussions were held into possible conditions it might be appropriate to apply should the Welsh Ministers be minded to allow the appeal and grant planning permission. The Council put forward a set of draft conditions (Document 49), and this was used as the basis for the discussions at the Inquiry. Several other suggestions were also made and discussed (Documents 50.1-50.4). In the paragraphs below summarising the need for conditions, reference is made to the numbers of the Council's draft conditions in Document 49.

242. Condition 1 is a statutory requirement to control the life of the permission. Condition 2 would ensure the duration of disturbance to the local community would be minimised, though it would need to be amended for consistency with the latest proposals. Conditions 3 and 4 would specify the sequence and extent of operations on the site, including progressive reclamation of the land, and Conditions 7 and 8 would provide further control over the extent of coal working. Condition 5 would ensure the site manager and operatives were aware of the conditions controlling the development. Conditions 6, 38 and 49 would be needed to establish and control acceptable methods of working, including the storage of materials and responsibility for environmental management, though Conditions 6 and 38 would be better combined. Condition 50 would ensure a programme of archaeological work was carried out, including further consideration of the Western Valley.

243. Condition 9 would remove certain permitted development rights and provide control over the deposition of mineral waste materials on the site. However, Condition 10 duplicates controls provided by the plans and is unnecessary. Conditions 11 and 12 would allow the Council to monitor coal extraction and lorry transportation rates to ensure acceptable scheme progress. Conditions 13, 14 and 15 would control hours of working and are necessary to avoid unacceptable impacts on the amenity of nearby properties. Conditions 16 and 18 would be needed to ensure adequate provision was made for improvements to the junction of the site access with the B4246 main road, including drainage. Condition 19 duplicates controls provided by other conditions and is unnecessary. Conditions 39 and 41 would ensure acceptable provision was made for an alternative access for Blaenmelyn Farm as the existing access track across the site would have to be closed.

244. Condition 20 would ensure the use of suitable wheel washing facilities so that dirt was not transferred on to the main road, and Condition 17 would ensure all coal lorries were sheeted to minimise dust emissions during transportation. Conditions 21, 22 and 23 would make provision for a Transport Plan, control of the lorry route and signage at the site entrance in order to minimise risks to highway safety and amenity.

245. Conditions 24-28 would be necessary to minimise and monitor the generation and incidence of dust on the site, and Conditions 29-34 would do the same for noise. To minimise the emission of harmful particulate matter it was agreed Condition 26 could be improved to include a requirement for all site plant to comply with the latest engine emission standards, as these reflect the most up to date appreciation of air quality standards needed to safeguard health. The noise conditions generally refer to monitoring at the facades of sensitive properties. However, it was argued that it would be better specified at external amenity areas, and I consider that to be more appropriate.

246. It would be important to ensure the site remediation aims were met and to avoid pollution, and Conditions 35-37 would ensure these matters were properly monitored and that suitable contingency action was taken should it be necessary. Similarly, Conditions 43 and 44 would make necessary provisions for an Environmental Management Plan and for the monitoring of groundwater. Condition 48 would ensure restoration of the land should the full coal working not be carried out. However,

Conditions 42, 45, 46 and 47 merely duplicate matters covered in other conditions and would be unnecessary.

247. Finally, conditions would be necessary to ensure no import of materials, no use of a mechanical crusher/grader (Conditions 51 and 52), no use of explosives (Document 50.1) and no floodlighting (Condition 40), as these are not intended to be used and have not been taken into account in assessment of impacts of the scheme. 2 other conditions have been suggested by Messrs Clarke and Styles: protection of the Western Valley against removal or import of material; and further restricted hours for lorry traffic (Documents 50.3 and 50.4). The first would effectively negate any planning permission granted and could not be reasonably imposed. Other conditions would adequately provide any protection that might be needed. I consider the second to be unnecessary and unreasonable.

248. Turning now to the S106 Undertaking submitted by the Appellant (Document 48.1), the commitments made by the Appellant are detailed in Schedules 1 and 2 of the document. There are 3 matters in Schedule 1. The first is that the Appellant would make every endeavour to establish a local liaison committee, the composition of which would be subject to approval by the Council. The second is for the provision of a restoration bond to a maximum value of some £2.6M to act as security for the completion of the restoration, landscaping and aftercare work. This is based on a detailed cost estimate of the work involved. The third matter is the provision of a scheme for the enhancement and rationalisation of the existing footpath network on the site in consultation with the Council's Access Forum.

249. Schedule 2 refers to the planning permission recently granted on appeal for housing development on land adjoining the appeal site (Ref APP/V6945/A/10/2135158 and dated 11 November 2011). The Applicants for the 2 schemes are the same people, though the application for the opencast coal scheme is made in a company name. Apart from minor access works, the housing development would not be carried out until after the reclamation scheme had been completed. This would ensure that the amenity of the new housing would not be affected by the appeal scheme as this has not been taken into account in the assessment of impacts.

250. The commitments contained in a S106 Undertaking would come into effect if planning permission was granted and implementation of the permitted scheme was begun. It is common ground that the S106 Undertaking would not relate to any pieces of infrastructure to be funded by the Community Infrastructure Levy and that it meets the tests prescribed in (Welsh Office) Circular 13/97, Planning Obligations, and in the Community Infrastructure Levy Regulations 2010. The commitments are material considerations in determination of the appeal.

Conclusions

[The numbers in square brackets indicate the relevant paragraphs of the report.]

251. In my view the main considerations in this appeal are: the effects of the proposed scheme on the health and amenity of local residents and of pupils at the nearby primary school, particularly in respect of dust and noise; the effects of coal lorries on the safety and amenity of the local road network, particularly as they pass through Blaenavon; the effects on other matters, including ecology and archaeology; whether or not the proposal would be in accordance with the development plan; whether there are exceptional circumstances sufficient to justify coal working within 500 metres of settlements; and whether the benefits and policy support for the scheme outweigh the disbenefits and policies against it. [3, 37, 97, 98]

252. The scheme is considered in its amended form with coal working no nearer than 200 metres from the nearest houses and with the western face moved about 10 metres to the east for slope stability reasons. The amended scheme would produce some 256,000 tonnes of coal and have a duration of just under 4 years. [2, 5, 16]

Noise Effects

253. The operation of plant and lorries on the site would give rise to increased levels of noise that would affect the amenity of occupants of nearby houses and the primary school. Background noise levels in Varteg are currently quite low and have been measured as approximately 35 dB L_{90} (the noise level exceeded for 90% of the time during the measurement period). Government Policy (as explained in Minerals Technical Advice Note 2: Coal {MTAN2}) is that quiet rural areas warrant greater protection than might be expected in noisier urban environments, and this is achieved by applying a limit on noise emissions from normal coal working based on an acceptable increase of 10 dB over the present background noise level, i.e. a limit of 45 dB L_{Aeq} 1 hr measured outside sensitive properties. [35, 54, 55, 102, 104, 105, 108, 214]

254. In order to allow screening bunds to be constructed between the main working area and nearby properties (which would have beneficial effects during the course of the main operations) MTAN2 advises that an exception to this limit should be allowed for a short period of time (for up to 8 weeks per year during limited working hours, 1000 – 1600 hours Monday – Friday) during initial soil stripping and baffle mound construction and final removal of the mound, subject to an absolute limit of 67 dB L_{Aeq} 1 hr. Noise modelling has been carried out to assess performance against these limits during the various stages of the proposed scheme, using worst case assumptions about the positions and work patterns of the plant concerned. [36, 54, 108]

255. The results show that the 45 dB limit would not be exceeded at the outdoor amenity areas of nearby properties except for a few weeks at the beginning and end of the scheme when the short-term 67 dB limit would not be exceeded. However, there would be slight exceedance of the 45 dB limit at the nearest facades to the site for some properties: at several houses and the primary school during the first and last few weeks of the scheme; and at Pembroke Terrace and Pembroke Place (the houses nearest to the working areas) at other times. However, the latter would be by no more

than 1-2 dB, a difference that would be only slightly discernible. Bearing in mind that this prediction is based on worst case assumptions and that noise levels would vary considerably depending on the location of plant, such a level would not be the norm and would only occur occasionally. I do not consider this slight deviation to be significant. [12, 17-20, 52, 53, 56, 57, 109-113, 236]

256. The modelling work also shows internal noise levels at all properties would be reasonable (measured against standards prescribed in BS8233, Sound Insulation and Noise Reduction for Buildings), even with windows partially open, except for a small number of houses closest to the site during the first and last few weeks of the scheme. If windows were closed the standard would not be exceeded at all. The Council has argued that comparison should be made against a much lower internal noise level, 22 dB, which it has calculated from the present external background level of 35 dB (35 dB minus 13 dB allowance for a partially open window). However, I do not consider that to be an appropriate comparison as 22 dB is unlikely to represent existing internal noise levels. It is an extremely low level of noise and likely to be far exceeded by noise generated within the houses themselves regardless of outdoor noise levels. [55, 58-60, 103, 106, 107]

257. Particular concerns have been expressed about the effects of increased noise at the primary school. There would be periodic slight exceedance of the 45 dB noise limit in the yard facing the site during the first and last few weeks of the scheme but nowhere else at the school and not during the main part of the scheme when the screening mound would be in place and most operations were being carried out below ground level. During the main part of the scheme outdoor teaching would not be materially affected by increased noise levels. Effects inside the school buildings would be negligible at all times, even in the prefabricated temporary classrooms. [57, 58, 61, 114, 194, 198, 223, 227]

258. Overall, whilst noise levels in the village would be increased, apart from during the first and last few weeks of the scheme, they would not have an unacceptable impact on residential amenity or conditions at the school. During the first and last few weeks, when the screening mound was being constructed and removed, higher levels of noise would be generated but not in excess of the increased limit prescribed in MTAN2. National policy considers that to be acceptable for short periods of time as it would enable site operations to be better screened for most of their duration. Although such levels of noise may give rise to complaint, the longer-term benefits would justify them. [17-20, 32, 113, 209, 236]

259. I conclude that, with only minor exception, the noise generated would not exceed the prescribed limits and that it would not have an unacceptable effect on amenity. It would not conflict with the criteria in Local Plan Policy G1 or Structure Plan Policy M1. [23, 115, 226]

Dust Effects on Amenity

260. Whilst dust would be generated by various activities on the site, it is not disputed that the main source would be the haul road, which would be constructed largely of sandstone excavated from deposits on the site. Whilst not immediately accessible, the site geology is such that sandstone would be available quite early in the scheme. Dust

pick-up and dispersion has been modelled using standard methodology and software with input data from recommended and reasonable sources. The results indicate that the limit prescribed for nuisance dust deposits in MTAN2 of 80 mg/m^2/day as a weekly average would not be exceeded at any receptor at any time during the scheme. The sensitivity of various data assumptions was also tested, and it was shown that, even if more conservative assumptions were made, very few exceedance incidents would be likely and only at properties immediately alongside the main working area. Any dust carried further away from the site would be substantially dispersed. [34, 62, 64, 116, 123]

261. Criticism of these results has been based on the relevance and accuracy of assumptions made for the input data: the silt content and density of the haul road material; the suppression factor; and the meteorological data. The meteorological data has been taken from 2 sources: St Athan and Twynyrodyn, near Merthyr Tydfil. St Athan is the nearest weather station where cloud cover data is measured. Twynyrodyn is at a slightly lower altitude than Varteg but is not far away and is likely to be more representative of other local weather conditions than any other weather station. Worst case data has been used in respect of wind speeds and rainfall, though the latter is not critical provided the haul road is kept reasonably damp from regular wetting-down with water from a bowser. I consider the assumptions made to be entirely reasonable and quite conservative. [63, 65, 67, 117, 118, 155, 156, 165, 235]

262. MTAN2 advises that the United States Environmental Protection Agency guidance document AP42, Compilation of Air Pollutant Emission Factors, be used to help predict dust emissions and that factors identified for Western Surface Coal Mining are the most applicable in the absence of better information. The Council has criticised the Appellant's failure to use silt content data measured in site investigations. However, it is impossible to apply the AP42 methodology for assessing silt content if the material is not already exposed at ground level. The Appellant has used the average silt content identified for such mines, 8.4%. Objectors argue that this is merely the average of a wide range of figures and that, if the greatest value was used, much higher levels of dust generation would be predicted. That is correct. However, for the reasons set out in the following paragraph, I consider 8.4% to already be an acceptably conservative assumption. [32, 62, 65, 119, 120, 156, 157]

263. The AP42 data for Western Surface Coal Mines is based on dirt haul roads, which would have a much higher silt content than one formed primarily with sandstone. The AP42 data for Taconite Mines shows significantly lower silt content levels, and that is likely to be because those haul roads are formed with sandstone, which commonly occurs in geological formations with taconite (an iron ore sedimentary formation). Even though AP42 shows higher silt content for freshly graded haul roads, the use of sandstone for haul road construction leads me to the conclusion that 8.4% is a conservative assumption for the silt content of the road. [15, 65, 121-123]

264. A suppression factor of 90% has been assumed in the modelling, which is relatively high. The Appellant has justified this by arguing that the haul road would be reasonably short in comparison with other opencast coal sites and that it would be perfectly feasible to keep it damp by a combination of wet weather and in dry weather damping it down several times per day using a water bowser. This is a high

suppression factor and, apart from a research paper that refers to an 80% value, the Appellant's justification is largely anecdotal based on expert experience. In the absence of supporting justification, I am not convinced this would be achieved. However, the sensitivity of the model to lower levels of suppression factor have been tested, and I am satisfied that acceptable levels of dust would still be achieved, particularly bearing in mind the conservative assumptions used in respect of meteorological conditions and silt factor. [62, 66, 124, 125]

265. Mention has been made of nuisance dust being deposited at properties close to the Ffos-y-fran opencast coal site at Merthyr Tydfil. However, that operation is of a much larger scale than would be the case at Varteg and uses much larger plant. In addition, the Council argues that the precautionary principle should be applied as limited confidence can be placed in the Appellant's modelling results. Clearly, predictions can never be absolutely certain. However, in this case I am satisfied that the modelling has generally been based on suitably conservative assumptions and that the levels of dust generated and dispersed to the surrounding area would be likely to be less than the levels predicted by the Appellant's modelling. It is not appropriate or necessary to apply the precautionary principle to the circumstances of these effects on amenity. [46-48, 68, 99, 117, 166, 185, 235]

266. Whilst some nuisance dust would be experienced at properties near to the site, I conclude that it would not be likely to have an unacceptable affect their amenity. It would not conflict with the criteria in Local Plan Policy G1 or Structure Plan Policy M1. [23, 64, 126]

Dust Effects on Health

267. Whilst not an issue with the Council, several third parties have expressed concerns about the health effects of dust, particularly because of the close proximity of the site to the primary school. MTAN2 advises that exposure to dust can lead to impacts ranging from minor effects on the respiratory system to premature mortality. The Appellant's dust assessment concentrated on particulate matter of diameter less than 10 μm (PM_{10}) and predicted additional airborne PM_{10} levels of no more than 6.4 μg/m^3 which, when added to the present background levels of 12.9 μg/m^3, would give total levels of less than 20 μg/m^3. This prediction, again based on quite conservative assumptions, would be only half the annual average limit of 40 μg/m^3 prescribed in the Air Quality Standards (Wales) Regulations 2010, the Welsh Government's latest Regulations aimed at the assessment and management of air quality. [33, 38, 69, 70, 97, 153, 158, 183, 184, 209, 210, 212]

268. It is common ground amongst all parties that the particulate matter most critical to health is that smaller than 2.5 μm in diameter ($PM_{2.5}$) as it can penetrate into the human respiratory system. The same Regulations specify a current annual average limit of 25 μg/m^3 for $PM_{2.5}$, falling to 20 μg/m^3 by 2015. The Appellant's dust assessment predicts that $PM_{2.5}$ would be considerably less than 20 μg/m^3. As $PM_{2.5}$ is part of PM_{10}, even if it were 100% of PM_{10}, levels would be less than 20 μg/m^3 (as explained for PM_{10} above). In fact, $PM_{2.5}$ is generally only a small proportion of the total PM_{10} amount and its predicted level would be considerably less than 20 μg/m^3. Thus predicted levels of both PM_{10} and $PM_{2.5}$ would be well within the air quality limits prescribed in the most up to date national regulations. [69, 70, 154]

269. In addition to natural dust, mention has been made of particulate matter in the emissions of site plant, and it has been alleged that these can be particularly polluting and harmful. It is generally accepted that there is no known safe level of particulate matter but that these particles are responsible for the main health risk associated with airborne dust. However, in this case the Appellant would intend to use new plant that would comply with the most up to date engine emission standards, which would minimise that element of air pollution. This could be ensured by a suitable condition. [32, 159, 184, 229, 237, 245]

270. All of this evidence has been considered by the Local Health Board (as statutory consultee for the planning application), who also sought advice from the National Health Board and the Health Protection Agency. Their conclusion on the Health Impact Assessment was that the air quality resulting from the proposed scheme would be unlikely to have an adverse effect on public health, and the Council accepted that advice. It has been submitted that children would be more susceptible to harmful effects of poor air quality than the general population, and it would certainly be wise to take a more precautionary approach when children would be at risk. However, the public health advisers above would have been aware of the close proximity to the primary school, and yet they reached their conclusion of acceptable level of risk in full knowledge of the site location. [28, 32, 71, 184, 193, 195, 196, 199, 201, 223-225, 228]

271. The Pentwyn Against Opencast Group has referred to numerous studies carried out into the health risks associated with dust and other airborne particulate matter both on a general basis and specifically associated with opencast coal mining. It has also drawn attention to lower $PM_{2.5}$ guideline values set in the United States and by the WHO. Whilst many of these papers are quite relevant all, except some very recent studies, have been taken into account by the Government's advisory committee on air quality standards, COMEAP, in setting the standards in the latest Regulations. It is not appropriate to review Government Regulations through the planning appeal process, and reliance is placed on standards prescribed in the 2010 Regulations, which are sufficiently recent as to be confidently taken to be up to date. It is also pertinent that many of the studies referred to have been raised in evidence presented at public inquiries into other opencast coal proposals but have not led to conclusions being reached that are contrary to the advice of the relevant public health advisory body. No convincing new evidence has been put forward to lead me to any other conclusion in this case. [33, 72, 73, 154, 160-162, 230]

272. I conclude that the proposed scheme would be unlikely to have an adverse effect on public health associated with air quality. Notwithstanding that conclusion, it is clear that the public perception of health risks, although ill-founded, has the potential to cause worry and stress amongst some of the local population and the parents of children attending the primary school. This itself is a health risk to be taken into account. [186, 197]

Effects of Coal Lorries

273. The effects of the coal lorries have been raised by some third parties. Over a period of 2½-3 years haulage of coal would involve some 4 No. 20 tonne lorries per hour (2 in and 2 out) over the course of each working day travelling along the B4246 and B4248 roads through Blaenavon to Brynmawr. It has been submitted that these roads are not suitable, being narrow and undulating, and that particular problems would be caused in Blaenavon, where the streets and footways are particularly narrow. [75, 177, 183, 202, 211]

274. There is no doubt that the streets in Blaenavon are not well suited to heavy traffic. Most streets are quite narrow, and one is even so narrow that 2 heavy vehicles travelling in opposite directions have to use part of the footway to be able to pass. This clearly causes risks to the safety of pedestrians, particularly as the footway concerned is itself quite narrow. The stretch of road concerned is alongside the World Heritage Centre, which attracts a large number of visitors, many of whom are likely to use the footway concerned. The lorry route would also pass a church and a chapel where the road is sometimes restricted by cars parked for funerals and other services, which on occasions can cause congestion. [76, 77, 203-205, 213]

275. The additional heavy lorry traffic would add to these problems. However, the roads concerned already carry some 5000-5500 vehicles per day, of which about 10% are HGV vehicles. The Council considered the additional lorries would not significantly add to congestion or conflict of vehicles and found them to be acceptable. It is also relevant that further development is being actively promoted in Blaenavon despite the additional traffic it would generate on the same roads, and in due course it will be a matter for the Highway Authority to ensure the road network is adequate. [38, 75, 77, 97, 178, 238]

276. So far as the current proposal is concerned, I have no reason to disagree with the Council's highway adviser. The additional lorry traffic would represent a relatively small increase in traffic numbers and a corresponding increase in risks to highway safety, noise levels and congestion over a relatively short period of time. These would not be significant such as to be considered contrary to the criteria in Local Plan Policy G1 and Structure Plan Policy M1. [23, 77, 206, 207]

Other Effects

277. Whilst not at issue with the Council, a number of other matters have been raised by third parties, particularly in connection with the Western Valley where it would be proposed to deposit a substantial quantity of tip and overburden material. Mr Clarke maintains that, contrary to the Appellant's assertions, physical evidence indicates that the valley has not been subject to previous coal working and tipping and that it still contains a long-established set of natural habitats. He bases this argument on the presence of a scour, scour leat and dam feature, which he says is an ancient piece of industrial archaeology, and several expansive lichen populations on large stones, which indicate growth over a long period of time and, like the archaeological feature, have not been disturbed by more recent opencast coal operations. [13, 38, 78, 82, 97, 167, 168, 171]

278. Old maps and Coal Authority plans provide considerable evidence of previous opencast operations in the Western Valley and, while Mr Clarke's assertions that these are not necessarily accurate may be true, I consider it more likely that some operations have taken place in the Western Valley than none at all. Site investigations carried out there in recent years have confirmed the deposit of significant thicknesses of opencast backfill, at least over most of the valley floor, and the large areas of lichen on stones appear to be generally on individual stones rather than virgin rock deposits. That growth could have occurred partly before and partly after the stones had been moved and deposited in their present locations. [81, 167, 169, 170]

279. The alleged industrial archaeological feature is more difficult to explain. If it is such a feature then it would indicate that that part of the valley has not been subject to the tipping of opencast waste material. However, equally, it could be a recently formed drainage scour that has washed away the overlying opencast waste material in that particular location. I am unable to reach a confident conclusion on this matter. However, it is not critical to my overall conclusions, as a condition could be applied to the permission requiring a programme of archaeological investigations to be carried out. If the feature was found to be a piece of industrial archaeology worth retention, that part of the valley could be safeguarded by amending the detailed design of the proposed tipping in that area. [82, 168, 182, 242]

280. Turning to the wider ecological effects, concerns have been expressed about a wide range of species and habitats. However, these effects have been considered in the Environmental Statement and in several additional ecological studies. The Countryside Council for Wales and the Council's own ecologist provided advice to the Council that, provided appropriate conditions were attached to any planning permission, impacts on designated habitats and protected species would not be significant and in the long-term would be mitigated by the proposed restoration plan. None of the evidence put forward at the Inquiry leads me to any different conclusion. Indeed, in the longer-term the restored landscape would be likely to provide a range of improved habitats. So far as proximity to Sites of Special Scientific Interest is concerned, I am satisfied the risks of affecting these would be negligible. [21, 78-80, 173-176, 233]

281. Particular evidence has been put forward about lichens. However, a well known lichen surveyor has advised that species identified as being rare or even unique are likely to be more common than might have been previously thought, as species that are of inconspicuous appearance or lacking a name are often under-recorded. In any case, it would be proposed to temporarily store many of the larger lichen-covered stones and reinstate them as part of the restoration scheme. With that in mind, I do not consider the proposal would cause unacceptable harm to the lichen population or any other species or habitat. [172]

282. Mention has also been made of possible aquifer contamination. However, no evidence has been put forward to support such concerns, and the matter was adequately dealt with in the Environmental Statement, which identified certain risks and measures to control or mitigate them. Subject to these, I consider any risks would be negligible. Other concerns have been expressed about effects on the access track to Blaenmelyn Farm, common land rights on parts of the site and the safety of a cycle route crossing over the B4248 road between Blaenavon and Brynmawr. A suitable

alternative farm access would be provided, commoner rights would be affected for only a limited period and the western valley would be returned for common land grazing within 5 years, and the number of coal lorries would not significantly affect traffic numbers along the B4248 road. These matters do not materially affect the main issues in this appeal. [21, 181, 217, 219-222, 243]

283. It has been submitted that the scheme would harm the local economy by deterring tourism with its associated impact on local businesses. However, I consider that would be more than balanced by benefits to the local economy from employment and support services for the scheme itself. It has also been reported that some parents have said they would remove their children from Ysgol Bryn Onnen if the scheme goes ahead and, if that were to occur, it could affect the viability of the school with associated loss of jobs. Loss of pupils could occur of course but, as I have found the risks of health effects to be negligible, any such reaction would not be founded on fact. [70, 71, 179, 180, 182, 200, 224]

Benefits of Scheme

284. The scheme would bring a range of benefits. The main benefit would be restoration of the land, which currently contains unsightly coal tips and the derelict remains of former coal workings comprising mine access shafts and adits on the surface and old tunnels under the ground. This would improve the character and appearance of the landscape, remove the health and safety risks associated with the coal tips and former mine workings, improve public access to the land with improvements to the network of footpaths, and provide an improved mosaic of habitats for nature conservation and enhancement. [12, 38, 79, 129, 248]

285. These improvements would benefit the residents of Varteg, many of whom support the proposal despite the short-term impacts on amenity that would be inevitable. Some of them have been waiting a long time for the derelict landscape to be reclaimed, an aim of the Council for many years. Without this scheme there is little prospect of the improvements being carried out in the foreseeable future as there is no other source of funding. [83, 215, 232-234]

286. The land reclamation would make a substantial contribution towards encouraging regeneration of the local area. Varteg has been neglected for many years, and its character is harmed by its close proximity to the unsightly tips and the derelict remains of former coal mining activities on the land. However, the scheme would increase opportunities for regeneration of the village and surrounding area. As mentioned above, it would bring some immediate economic benefit, albeit quite limited. However, wider economic benefits would be encouraged in the future. [79, 130, 187, 215]

287. Finally, the scheme would, of course, provide some 256,000 tonnes of coal, a small but useful contribution towards the demand for coal. It would release a reserve that would otherwise not be exploited, though not taking full advantage of further reserves on and beyond the western edge of the site. Nevertheless, the supply of coal is a useful benefit supported by national policy. [26, 44, 128, 149]

Development Plan

288. The development plan is the starting point for consideration of the proposal. It comprises the Gwent Structure Plan, adopted in 1996, and the Torfaen Local Plan, adopted in 2000. The emerging Local Development Plan has yet to be subject to examination and so carries little weight. Relevant national policy is mainly contained in Minerals Planning Policy Wales (MPPW), dated December 2000, supported by Minerals Technical Advice Note 2: Coal (MTAN2), dated January 2009, and these are also material considerations. [22-25]

289. Structure Plan policies L1 and L2 and Local Plan Policy E4 provide strong support for the scheme. Structure Plan Policy L1 encourages the reclamation of derelict land, and supporting text identifies the Varteg Tips as one of only 2 extensive areas of derelict land in Gwent not already programmed for improvement. At that time the expectation was that the former Welsh Development Agency would carry out a programme of reclamation work and that the County would be substantially free of dereliction before the turn of the century. The Varteg site lies within a designated Landscape Improvement Area, and Policy L2 says that priority should be given to land reclamation in Landscape Improvement Areas. Supporting text says that these areas are strategic priorities for landscape improvement in order to eradicate the disadvantages of these areas as places to live, invest and visit. Local Plan Policy E4 supports land reclamation and environmental enhancement schemes in Landscape Improvement Areas, and the supporting text describes Landscape Improvement Areas as areas within which the removal of dereliction should be afforded a high priority. Clearly these 3 development plan policies provide strong support for a reclamation scheme on the appeal site. [23, 24, 39, 40]

290. Whilst many reclamation schemes have been carried out and funded by the former Welsh Development Agency, that vehicle now no longer exists, and the current scheme (financed by coal recovery) is likely to be the only means by which this strategic priority can be achieved in the foreseeable future. The Structure Plan acknowledges that reclamation may occasionally be achieved as a by-product of mineral working. [39-41]

291. The development plan also contains criteria based policies for acceptable developments: Structure Plan Policy M1 lists criteria for mineral developments; and Local Plan Policy G1 lists general development criteria. I have specifically concluded above that the scheme would meet those criteria relevant to the main disputed topics: noise, dust and highway safety. It would also not conflict with any of the other criteria. [23, 24, 41, 127]

292. Overall, I conclude that the proposed development would be fully in accord with all relevant development plan policies.

500 Metres Buffer Zone

293. MPPW and MTAN2 generally provide further support for the proposed scheme. However, they also introduce the requirement for a buffer zone to be maintained between mineral workings and nearby settlements in order to protect amenity. In ordinary circumstances a 500 metres buffer zone is specified but MTAN2 makes

provision for a smaller zone in exceptional circumstances and even acknowledges that working within 200 metres of a settlement may be justifiable in some circumstances. [26, 29, 42, 43, 49, 132, 133, 188, 214]

294. In this case, the site boundary would be a little over 100 metres from the primary school and less than 50 metres from a number of residential properties, though the nearest coal working would be about 350 metres from the school and 200 metres from the nearest houses. Reduction of the buffer zone to this extent requires consideration of the merits of the remediation and of the impacts on the settlement, and demonstration of exceptional circumstances. [188, 210, 214]

295. MTAN2 lists a number of factors that might be considered exceptional circumstances, and 3 of these are relevant to the appeal proposal:

- *"where coal working provides the most effective solution to prevent risk to health and safety arising from previous mineral working"*;
- *"to remediate land damaged by shallow coal workings or mine waste, where coal extraction appears to be the most suitable option"*; and
- *"when the proposal is of overriding significance for regeneration, employment and economy in the local area"*. [30, 50, 51, 134, 189]

296. The most important factor in this case is the second of these, and there is no dispute that the proposal would *"remediate land damaged by shallow coal workings or mine waste"*. However, the Council argues that coal extraction is not necessarily the most suitable option and that the Appellant has not properly evaluated alternative options. Whilst a well structured evaluation of alternative options has not been carried out, I consider over the life of the application and appeal this requirement has been adequately met. The Appellant's initial scheme formulation included consideration of the suitable scope of a coaling scheme that was sufficiently viable to fund the reclamation works, and the scheme preferred at that stage has been further refined on 2 occasions to keep work further away from the settlement and to take account of improved knowledge about ground conditions along its western edge. No doubt further alterations could be made but there is a limit to the reduction in coal output that would maintain viability for the scheme, and I have concluded above that impacts of the latest appeal scheme on the adjoining settlement would be acceptable. [84, 87, 89, 135, 136, 143]

297. There can be little doubt that coal extraction is the most suitable option when no other viable option is available. Reclamation of the derelict land on the site has been part of a development plan priority for at least the last 15 years, and the alternative vehicle for achieving that aim (the former Welsh Development Agency's programme of work) no longer exists. Furthermore, there does not appear to be any prospect of alternative funding for the work in the foreseeable future and so no prospect of the reclamation being carried out except through a coal recovery scheme. Thus the circumstances required to meet this exceptional circumstance exist. The importance I attribute to them is reinforced by the long-term landscape and environmental benefits the scheme would bring and the priority attributed to achieving these benefits in the development plan. [50, 83, 87, 88, 144, 216, 239]

298. On the health and safety factor, it is not disputed that the scheme would bring worthwhile benefits by removing the coal tips and the many former coal mine shafts, adits and tunnels on and beneath the site. However, the Council argues it would not provide *"the most effective solution"* and that the Appellant has not properly evaluated alternative means of achieving these aims. There is no dispute that schemes aimed solely at overcoming health and safety risks on the site have not been evaluated by the Appellant, and no doubt this is because they would not be self-funding. The Council has suggested 2 possible schemes that would involve limited measures to safeguard the derelict former mining remains and, although the detailed costs of these are in dispute, there is no doubt they could be carried out at much lower cost than the proposed coal recovery scheme. However, responsibility for this work would rest with the Coal Authority, and there is no indication that funding would be available. [85, 86, 89, 135-140]

299. I do not consider this factor to represent an exceptional circumstance in its own right as the health and safety measures needed could certainly be achieved with equal effect by works having far less impact on the neighbouring settlement. Nevertheless, the appeal scheme would achieve all of those benefits as a by-product of the wider scheme proposed to achieve restoration of the land as a whole. It could be argued that, for this reason, it would be *"the most effective solution"*. However, it is a material factor in support of the scheme.[89, 141]

300. Finally, the third factor is that of *"overriding significance for regeneration, employment and economy in the local area"*. The direct benefits of this sort would be small. However, the supporting text to Structure Plan Policy L2 explains that priority should be given to reclamation of derelict land in Landscape Improvement Areas in order to eradicate the disadvantages of these areas as places to live, invest and visit. Thus it is reasonable to consider that the scheme would be beneficial to long-term regeneration of the local area with knock-on benefits for employment and the economy. On its own I do not consider this factor to be of *"overriding significance"*. However, it is a material factor in support of the scheme. [90, 145]

301. MTAN2 provides no guidance on how exceptional the circumstances have to be to justify relaxation of the national policy for a 500 metres buffer. I take it to depend on the particular circumstances of each site and the effectiveness of measures needed to mitigate impacts on the nearby settlement. In this case I conclude that exceptional circumstances are made out to justify relaxation of the buffer zone policy on account of the remediation of the land damaged by former coal working and waste tips, particularly in view of the priority attributed in development plan policies to this remediation in Landscape Improvement Areas. This is further reinforced by additional benefits in removing risk to health and safety arising from previous mineral working and in improving the prospect of long-term regeneration of the local area. [31, 91, 94-96, 146-148, 190-192]

302. The Council has argued that the precautionary principle is a key element of Welsh Government policy and that it should be applied in this case because of lack of certainty in the assessments of dust and noise impacts. There can never be certainty in predictions of impacts. However, I am satisfied that in this case the predictions are based on conservative modelling assumptions and represent reasonable assessments

of worst-case scenarios. Furthermore, there is no question of causing irreversible environmental damage; the long-term environmental effects would be positive. [46-48, 99, 100, 201, 231]

Possible Conditions

303. Suitable conditions would need to be included in any planning permission in order to properly control the development and to ensure that necessary mitigation measures were included. Discussions into possible conditions were held at the Public Inquiry and, on the basis of those, I have drafted a set of suitable conditions with appropriate modification of those put forward at the Inquiry in order to improve their precision and effectiveness. An Annex of suitable conditions is attached that would pass the tests prescribed in Circular 35/95, The Use of Conditions in Planning Permissions. It should be noted that the numbers of the recommended conditions in the Annex do not follow those in the Council's draft set of conditions. The S106 Undertaking would meet the tests prescribed in Circular 13/97 and in the Community Infrastructure Levy Regulations 2010 and has also been taken into account. [8, 241-250]

Overall Balance and Conclusions

304. I have concluded above that the proposed development would be fully in accord with all relevant development plan policies. It would also be supported by the main national policies contained in Minerals Planning Policy Wales and the supporting guidance in Minerals Technical Advice Note 2: Coal. The proposal would be environmentally acceptable or could be made to be so by planning conditions or obligations, there would be no lasting environmental damage (in fact, there would be long-term environmental benefits), and the restoration plan would result in the land being restored to a high standard and to beneficial and suitable after-uses. These are the requirements for opencast proposals specified in MPPW. [27, 43, 45, 92, 93, 150]

305. I have also concluded above that exceptional circumstances exist to justify relaxation of the 500 metres buffer zone ordinarily required by national policy on account of the benefits achieved in remediation of land damaged by former coal working and waste tips, particularly in view of the priority attributed in development plan policies to this remediation in Landscape Improvement Areas. This is further reinforced by additional benefits in removing risk to health and safety arising from previous mineral working and in increased prospects for associated long-term regeneration of the local area. [93, 101, 152]

306. The proposed scheme would not have unacceptable impacts on the amenity of local residents or children attending the nearby primary school, on highway safety or convenience, on local ecology or on any other environmental matters. Risks to health associated with dust generated on the site would be negligible. Whilst some local residents and parents of pupils at the school might experience worry and stress over health risks, these would be ill-founded. I do not consider them to outweigh the environmental benefits and strong development plan policy support for the scheme.

307. I have taken into account the Environmental Statement as modified in 2009 and supplemented in 2010, along with all other environmental information submitted to the Public Inquiry and all other matters raised. Nothing outweighs the considerations that have led me to my main conclusions above. I conclude that the appeal should be allowed. [2, 6]

Recommendation

308. I recommend that the appeal be allowed and planning permission be granted for a land reclamation and coal recovery scheme in accordance with the application ref. 04/P/09210 dated 7 May 2004, and as amended to ensure coal working no nearer than 200 metres from the nearest houses and with the western face moved some 10 metres to the east, on land at Varteg Hill, Varteg, Pontypool, subject to the conditions detailed in the attached Annex.

Clive Nield

Inspector

APPEARANCES

FOR THE LOCAL PLANNING AUTHORITY:

Mr Reuben Taylor of Counsel	Instructed by the Council's Solicitor
He called:	
Mr Peter Oates, BSc(Hons), DipIOA	Senior Environmental Health Officer, Torfaen County Borough Council.
Mr David Barnard, MRICS	Director, Bardill Barnard Ltd, Chartered Surveyors.
Mr Simon Croxford, BSc(Hons), MSc	Associate Director, White Young Green Environmental.
Mr Norman Jones, BSc(Hons), DipTP, MRTPI	Area Team Leader, Development Control, Torfaen County Borough Council.

FOR THE APPELLANT:

Ms Morag Ellis QC	Instructed by Mr Andrew Muir, Harmers Limited.
She called:	
Mr David Mason, HNC, FIQ	Planning Manager, Miller Argent Ltd.
Dr David Palmer, MSc, PhD, MIA	Technical Director (Noise Modelling and Noise Mapping), AECOM Limited.
Mr Nigel Evers, DipLA, CMLI	Director, Cooper Partnership Limited, Landscape and Environmental Consultants.
Dr Gareth Collins, BSc, MSc, PhD, MIAQM	Associate Director (Air Quality), AECOM Limited.
Dr Malcolm Blandford, BSc(Hons), MSc, PhD, FGS, C.Geol	Senior Partner, Blandford Consulting (Geologists, Geotechnical Engineers and Environmental Consultants).
Mr Andrew Muir, BSc(Hons), DipTP, MRTPI	Managing Director, Harmers Limited, Town Planning and Development Consultants.

FOR THE PENTWYN AGAINST OPENCAST GROUP:

Mr Roger Coghill, MA(Cantab), C.Biol, MIBiol(rtd), MA	Coghill Research Laboratories, independent consultant in environmental management.
Mr Owen Clarke	Resident of Pentwyn.
Mrs Yvonne Walker	Resident of Pentwyn.
Mrs Elaine Sargent	Resident of Pentwyn.

FOR THE NO OPENCAST AT VARTEG CAMPAIGN:

Mrs Phyllis Roberts	Resident of Blaenavon, former County Councillor.
Mr Tony Kinsella	Joint Chair of "No" Campaign, Ysgol Bryn Onnen Governor, resident of Garndiffaith.
Mr Alan Styles	Joint Chair of "No" Campaign, resident of Blaenavon.
Dr John Cox	Resident of Talywain.
Rev Priscilla Pearson	Resident of Cwmavon, former Chair of Ysgol Bryn Onnen Governors.

OTHER INTERESTED PERSONS:

Ms Lynne Neagle AM	Assembly Member for Torfaen. (Also speaking on behalf of Mr Paul Murphy MP)
Mr David McLoy	Local farmer, Member of Commoners' Association, Member of Waunavon Environmental Protection Committee.
Cllr Stuart Evans	Local Ward Councillor, Torfaen CBC.
Cllr (Mrs) Gwyneira Clarke	Abersychan Ward Councillor, Torfaen CBC.
Mr Anthony Price	Local farmer, Member of Commoners' Association, Member of Waunavon Environmental Protection Committee, NFU Welsh Area Committee Member.

Mr Ronald Phillips	Local farmer, Member of Commoners' Association, Member of Waunavon Environmental Protection Committee.
Mrs Yvonne Balakrishnan	Ysgol Bryn Onnen Governor.
Dr Derek Pope	Resident of Blaenavon.
Mr John Morgan	Resident of Varteg.

DOCUMENTS

1	Letter of Notification of Inquiry and list of persons notified.
2.1-2.2	Lists of Appearances on behalf of Appellant and the No Opencast at Varteg Campaign.
3.1-3.3	3 white folders containing Council's Questionnaire papers.
4.1-4.3	Gwent Structure Plan 1991-2006 dated March 1996; Adopted Local Plan for the County Borough of Torfaen, adopted July 2000; and Deposit Draft Local Development Plan dated March 2011.
5.1-5.4	Appellant's Environmental Reports: Faber Maunsell/AECOM Phase 1 Desk Study, September 2005; Faber Maunsell/AECOM Hydrogeological and Contaminated Land Assessment Interim and Final Interpretative Reports dated November 2005 and November 2006 respectively; and Hawkeswood Ecology Ecological Assessment dated January 2006.
6	ERM Health Impact Assessment dated March 2009.
7	Cooper Partnership Restoration Plan, dated May 2009.
8.1-8.3	Revised May 2009 Environmental Statement, Volumes: 1 Non-Technical Summary; 2 Text; and 3 Technical Information.
9	June 2010 Addendum/Further Changes to Environmental Statement.
10.1-10.5	Further Environmental Reports: AECOM Noise Impact Assessment, revised October 2010; Hawkeswood Ecology Reptile Refugia Survey, October 2010; Hawkeswood Ecology Great Crested Newt Survey, October 2010; Hawkeswood Ecology Bat Roost and Activity Surveys, October 2010; and Hawkeswood Lepidoptera Survey 2010.

11.1-11.3	Recent Aecom Reports: Supplementary Noise Impact Assessments, dated November 2011 and January 2012 respectively; and Dust Assessment, dated November 2011.
12	Statement of Common Ground between Appellant and Council, dated 7 November 2011.
13	Council's Position Statement dated 29 November 2011.
14.1-14.4	Opening Statement on behalf of Appellant with 3 accompanying Legal Judgements.
15	Opening Submissions on behalf of Council.

COUNCIL'S EVIDENCE

16	Mr Oates' Statement of Evidence.
17.1-17.4	Additional papers submitted by Mr Oates: Extract from United States Environmental Protection Agency Guidance document AP42; re-tabulated data from November 2011 Noise Assessment; extract from One Wales: One Planet, The Sustainable Development Scheme of the Welsh Assembly Government; and extract from BS 8233:1999, a Code of Practice on Sound Insulation and Noise Reduction for Buildings.
18.1-18.2	Mr Barnard's Statement of Evidence and Rebuttal Statement.
19.1-19.2	Mr Croxford's Statement of Evidence and Rebuttal Statement.
20	Mr Jones' Statement of Evidence.

APPELLANT'S EVIDENCE

21	Mr Mason's Statement of Evidence.
22.1-22.3	Additional papers submitted by Mr Mason: sketch of bund construction sequence; photograph of bulldozer to be used; and Note on Use of Sandstone in Roads.
23	Dr Palmer's Statement of Evidence.
24.1-24.2	Additional papers submitted by Dr Palmer: extract from The Assessment and Rating of Noise from Wind Farms by ETSU; and note on Predicted Classroom Internal Noise Levels.
25.1-25.3	Mr Evers' Statement of Evidence and Summary, and Rebuttal Evidence.

26.1-26.4 Additional photographs submitted by Mr Evers: aerial photograph of site with scheme overlay; 2000 aerial photograph of Western Valley; and 1886 and 1901-02 OS maps overlaid on 2000 aerial photograph of western valley.

27.1-27.2 Dr Collins' Statement of Evidence; and Rebuttal to Appendix C.

28.1-28.6 Additional papers submitted by Dr Collins: Chapter 13 Extract from United States Environmental Protection Agency Guidance for Western Surface Coal Mining, document AP42; Appendix C1 extract from ditto; Inspector's Report on Ffos-y-fran land reclamation scheme at Merthyr Tydfil, dated November 2004; NAW decision letter on the same scheme; extract from Nottingham University paper re dust suppression factor; and response to APHEIS paper submitted by Mr Coghill.

29.1-29.2 Dr Blandford's Statement of Evidence and Supplementary Statement.

30.1-30.6 Additional papers submitted by Dr Blandford: Ground Investigation and Slope Stability Analysis report following 3 additional boreholes on site in January 2012; 2 location plans for the 3 boreholes; plan of sections across site showing coal seams; a (partly handwritten) Position Statement agreed by Appellant's and Council's experts during the course of the Inquiry to arrive at a revised scheme; and a Simplified Geological Cross Section showing the sandstone seams.

31 Email from the Coal Authority confirming support for the revised scheme despite its reduced yield.

32 Mr Muir's Statement of Evidence.

EVIDENCE FROM PENTWYN AGAINST OPENCAST GROUP

33.1-33.9 Mr Coghill's Statement of Evidence and accompanying extracts of reports on 8 scientific research papers on environmental effects of noise and dust.

34.1-34.6 Additional papers submitted by Mr Coghill: Addendum Statement re Dust Deposition and PM_{10} Concentration Estimates; APHEIS paper on Health Impact Assessment on the Benefits of Reducing $PM_{2.5}$ in 26 European Cities; Wales rainfall data; Midwest Research Institute paper on Revisions to Fine Fraction Ratios Used for AP-42 Fugitive Dust Emission Factors; USEPA Note on Fugitive Dust from Unpaved Roads; and Mr Coghill's Concluding Comments at end of Inquiry.

35.1-35.4 Mr Clarke's Presentation at Inquiry, written statements dated 1 October and 27 November 2011, and Mr Clarke's Views on Disagreement with Dr Blandford, dated 7 February 2012.

36.1-36.2 Mrs Walker's Written Statement dated 15 October 2011, and article on dust from coal mining from The Australian.

37.1-37.3 Mrs Sargent's Statement at Inquiry and Written Submissions dated 27 November 2011 and 26 December 2011 (re Lichens).

38 Dr Van Steenis' Written Statement.

EVIDENCE FROM NO OPENCAST AT VARTEG CAMPAIGN

39 Mr Kinsella's Statement dated 8 September 2011.

40.1-40.3 Mr Styles' presentation at Inquiry (black folder), set of photographs of route through Blaenavon, and extract from Design Bulletin 32 compared with sketch of road width in Church Road, Blaenavon.

41.1-41.2 Dr Cox's presentation at Inquiry and Written Statement dated 21 August 2011.

42.1-42.6 Rev Pearson's presentation at Inquiry with additional papers: Professor Prowle's letter of 30 September 2011; School petition against the opencast scheme; letter from Local Public Health Director dated 21 September 2009; and Written Statements dated 27 September 2011 and 30 December 2011.

43 Mrs Roberts' letter received on 16 September 2011.

EVIDENCE FROM OTHER THIRD PARTIES

44.1-44.3 Papers submitted by Mr McLoy: Cycle Track and Traffic Assessment; email explaining areas of concern; and letter from Mr & Mrs Penney of Blaenmelyn Farm dated 7 February 2012.

45.1-45.6 Dr Pope's Statement and accompanying papers: extract from World Health Organisation document, Guidelines for Community Noise; note on European Emission Standards for Non-road Diesel Engines; note on European Emission Standards for Large Goods Vehicles; extract from WHO report on carcinogenic risks to humans from engine exhausts; and Wales Health Impact Assessment Support Unit document, Guide to Assessing the Health and Wellbeing Impacts of Opencast Mining.

46.1-46.3 Mr Morgan's Statement of Evidence, note on the Decibel Scale, and letters of support from another 7 neighbouring households.

47 Bundle of letters from third parties.

GENERAL

48.1-48.2 Signed Section 106 Undertaking dated 9 February 2012, and (for information purposes) the S106 Undertaking entered into on 5 October 2011 for housing development on adjacent land.

49 Draft Conditions suggested by Council.

50.1-50.4 Additional suggested conditions: blasting condition suggested by Council; explosives condition suggested by Mr Clarke; condition about vegetation in the Western Valley, suggested by Mr Clarke; and coal lorries time limit condition, suggested by Mr Styles.

51 Closing Submissions on behalf of Council.

52 Closing Submissions on behalf of Appellant Company.

53 Appellant's final response to Mr Coghill's late submissions.

PLANS

A Application Site Plan.

ANNEX of Recommended Conditions

1. The development hereby permitted shall be begun no later than the expiration of 5 years from the date of this permission. Written notification of the intended date of commencement shall be sent to the Local Planning Authority 21 days prior to the date of commencement.

2. The extraction of minerals shall cease within 3 years of the date of commencement of development, as notified in compliance with Condition 1, and all plant, machinery, hardstanding, structures, buildings and other works associated with the development shall be removed off site within 12 months of the cessation of mineral extraction or within 4 years of the date of commencement of development, whichever is the sooner.

3. From the commencement of development to completion a copy of this planning permission, including all documents hereby approved and any other document subsequently approved in accordance with this permission, shall be permanently maintained and available for inspection at the site office.

4. The development to which this permission relates, including the working, restoration and aftercare of the site, shall be carried out only in accordance with the following working programme and phasing plans:

   - Drawing No. GPC/VTEG/01 Rev B (Site Layout Plan);
   - Drawing No. GPC/VTEG/02 Rev A (Phasing Plan Phase 1);
   - Drawing No. GPC/VTEG/03 Rev A (Phasing Plan Phase 2);
   - Drawing No. GPC/VTEG/04 Rev A (Phasing Plan Phase 3);
   - Drawing No. GPC/VTEG/05 Rev A (Phasing Plan Phase 4); and
   - Drawing No. GPC/VTEG/06 Rev B (Sections).

5. The surface area of coal extraction shall not extend beyond the orange pecked line as indicated on Drawing No. GPC/VTEG/01 Rev B (Site Layout Plan).

6. Notwithstanding Condition 4, no coal extraction shall take place below the Lower 7 Feet (basal) seam as indicated on Drawing No. GPC/VTEG/06 Rev B (Sections).

7. The site shall be progressively reclaimed in accordance with the restoration scheme as specified in the Restoration Plan prepared by Cooper Partnership dated May 2009. The site shall be restored in its entirety in accordance with the Restoration Plan within 12 months of the cessation of coal extraction operations.

8. No development shall commence until a Method of Working Statement has been submitted to and approved in writing by the Local Planning Authority. Any works undertaken shall be fully in accordance with the approved Method of Working Statement, which shall include the siting, design and appearance of all external surface structures, buildings, details of fencing, construction of the site access point, office,

welfare, workshop, parking area, wheel wash, weighbridge, foul and surface water drainage, water treatment areas, the storage of materials, chemicals and fuels/oils, and the working method and treatment of overburden, solid and soil forming material storage areas, and all other embankments, bunds and mounds. The Method of Working Statement shall be supported, where necessary, by detailed calculations and a maintenance programme and shall establish current and future ownership of the facilities provided.

9. Prior to commencement of works on site an Environmental Manager shall be appointed to overview soil stripping/storage, the restoration scheme, habitat creation and landscape works. The role, functions, experience and professional requirements of the Environmental Manager shall be submitted to and approved in writing by the Local Planning Authority before the commencement of works on site.

10. No development shall take place until the Appellant, or their agents or successor in title, has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted to and approved in writing by the Local Planning Authority.

11. Notwithstanding the provisions of Parts 19 & 21 of Schedule 2 of the Town and Country Planning (General Permitted Development) Order 1995 (or any Order amending, replacing or re-enacting that Order), no mineral waste or other material resulting from the works hereby approved shall be deposited except in strict accordance with the details hereby approved.

12. From the commencement of development the operators shall maintain records of their monthly output of coal and shall deposit these within 14 days of the last day of each month with the Local Planning Authority.

13. A written record shall be maintained at the site office of all movements out of the site by HGVs. Such records shall contain the operating company's identity, the vehicle's weight, the vehicle's registration number, and the time and date of the movement. The records shall be made available for inspection by the Local Planning Authority on demand at any time.

14. Except in emergencies (i.e. circumstances in which the operator has reasonable cause for preventing injury to persons or serious damage to property) in order to maintain the safe operation of the site (notification of which shall be given to the Local Planning Authority as soon as practicably possible), there shall be no operations (i.e. any physical works including the starting/warming/revving of any internal combustion engine, motor vehicle, or other machinery), other than water pumping or servicing to water pumps or environmental monitoring, or vehicle movement into or out of the site, except between the following times:

    - Hours of operation (other than those specified below):
        - 0700 to 1900 hours Monday to Friday (except Bank Holidays);
        - 0700 to 1300 hours Saturday;
    - Hours of coal loading and haulage:

- 0700 to 1800 hours Monday to Friday (except Bank Holidays);
- 0700 to 1300 hours Saturday;

- Hours for soil stripping, the construction and removal of baffle mounds at the eastern boundary, soil storage mounds and water treatment areas:
  - 1000 to 1600 hours Monday to Friday;
- No work shall be undertaken on Sundays or Public Holidays.

15. Notwithstanding the terms of Condition 14, no work to create or remove the baffle mound at the eastern boundary shall take place on Saturdays.

16. No mining operations or other site preparatory works shall be carried out until the junction between the site access road and the Varteg Road (B4246) has been laid out in accordance with a scheme which shall have been submitted to and approved in writing by the Local Planning Authority. The improvement shall provide for the following:
    - a maximum gradient of 1 in 8 for a minimum distance of 15 metres from the B4246;
    - the hard surfacing of the access for a minimum distance of 15 metres from the B4246;
    - provision of visibility splays of 2.4 metres by 150 metres to the right and 2.4 metres by 200 metres to the left.

17. A drainage system shall be installed and maintained to ensure that no surface water from the site flows on to the public highway.

18. Prior to the commencement of the approved development full details of the alternative vehicular access to Blaenmelyn Farm shall be submitted to and approved in writing by the Local Planning Authority. The alternative access shall be constructed in accordance with the approved details before use of the existing access is interrupted.

19. All vehicles associated with the approved development shall enter and leave the site via the improved access from the B4246 at the northern end of the site. The new access to Blaenmelyn Farm shall be used solely by vehicles associated with the use of that property.

20. No commercial vehicles shall enter the public highway from the site unless their wheels have been cleaned using the facilities approved by the Local Planning Authority.

21. All coal laden vehicles leaving the site shall be sheeted.

22. No operations shall commence on site until a Transport Plan for the routeing of HGVs to and from the site has been submitted to and approved in writing by the Local Planning Authority. The Plan shall identify arrangements for:
    - monitoring of the approved arrangements;

- ensuring that all drivers under the control of the site operator are made aware of the approved arrangements; and
- the disciplinary steps that will be exercised in the event of default.

23. The approved routeing plan shall be implemented throughout the life of the site operations.

24. Prior to the commencement of operations, signage, the details of which shall be submitted to and approved in writing by the Local Planning Authority, shall be erected and thereafter maintained at and in the vicinity of the site entrance advising drivers leaving the site of vehicle routes approved by the Local Planning Authority and making other highway users aware of the existence of the site entrance.

25. No development shall take place until a detailed scheme and programme of measures to suppress dust and a programme of air quality monitoring have been submitted to and approved in writing by the Local Planning Authority. The mitigation measures shall be based upon those set out in the Environmental Statement accompanying the application for planning permission and described in the statement of evidence of Mr David Mason. Such mitigation/suppression measures shall be implemented in accordance with the approved scheme.

26. To assist in the control of dust and mitigate any potential effects of dust nuisance adequate dust suppression measures are to be employed using Best Available Techniques (BAT) for the monitoring and control of dust which may arise directly or indirectly as a result of site activities.

27. The approved scheme for the control and mitigation of dust shall ensure that:

(i) a sufficient number of water spraying units are provided and maintained in efficient working order so as to ensure that all haul routes and other areas traversed by vehicles are kept damp during dry weather;

(ii) spraying vehicles have an adequate water supply at all times;

(iii) there is regular and effective maintenance of haul roads;

(iv) the exhausts and through-body exhaust systems of plant vehicles are fitted so as to prevent exhaust gases being emitted downwards;

(v) all relevant heavy plant shall be fitted with radiator deflector plates;

(vi) all site plant shall comply with the latest engine emission standards;

(vii) tipping and removal of overburden is to temporarily cease or be relocated within the overburden storage area when the Local Planning Authority considers that wind strength and direction may result in significant dust nuisance;

(viii) construction of baffle mounds is to temporarily cease or be relocated when the Local Planning Authority considers that the wind strength and direction may result in significant dust nuisance;

(ix) baffle mounds are to be sealed and seeded as soon as practicable after they have been constructed in order to minimise wind-blown material affecting adjoining properties;

(x) the outer faces of overburden mounds are formed first to shield subsequent activities and are removed in reverse order;

(xi) the road between the vehicle washing facility/offices and the junction with the Varteg Road (B4246) will be hard surfaced;

(xii) there is imposition of a 20 mph speed limit on all site roads.

28. Air quality monitoring shall be undertaken in accordance with a scheme submitted to and approved in writing by the Local Planning Authority in advance. This shall include:

(i) baseline monitoring to establish background levels of dust which must be carried out for a period of at least 12 months prior to the commencement of development;

(ii) dust monitoring using dust deposition gauges or sticky pads to identify nuisance dust shall be carried out at specified receptor locations within the community in accordance with details submitted to and approved in writing by the Local Planning Authority;

(iii) a weather station shall be set up and operated for the duration of the scheme at a location to be submitted to and approved in writing by the Local Planning Authority, to measure rainfall, wind speed and direction, and temperature; such information to be kept for the duration of the scheme and made available to the Local Planning Authority on request;

(iv) PM_{10} and $PM_{2.5}$ monitoring to be undertaken using a methodology submitted to and approved in writing by the Local Planning Authority in advance; such monitoring to be carried out for 12months prior to commencement of the works and continue for a minimum period of 12 months after coal winning commences; the monitoring data shall be made available to the Local Planning Authority on request and, if it is established that such monitoring is not required as a result of site activities after such a period, the monitoring may then cease, subject to the written approval of the Local Planning Authority;

(v) Regular review of the monitoring data by the Site Manager.

29. Dust deposition shall not exceed the combination of 100% absolute area coverage across a single 45^{o} sector over a 7 day period or discolouration where the effective area covered is greater than 25% for a single sector within the same period at any specified receptor approved pursuant to Condition 35.

30. Before the development begins a scheme for the monitoring of noise shall be submitted to and approved in writing by the Local Planning Authority. Such a scheme will identify a range of representative receptors to be monitored (including residential properties and the school), the method of and time frame for monitoring, and the provision of the monitoring results to the Local Planning Authority. The scheme shall be implemented as approved.

31. With the exception of those activities regulated under other conditions, noise arising from the operations hereby permitted shall not exceed 45 dB L_{Aeq} 1 hour (free field) at any external amenity area of any residential property or other approved receptor.

32. Notwithstanding Condition 31, the noise arising from the operations hereby permitted shall not exceed 46 dB L_{Aeq} 1 hour (free field) at any external amenity area of the 2 new properties in Pembroke Place and of Mountain View and Forest View during Phase 2 of the scheme as defined in the drawings referred to in Condition 4.

33. Notwithstanding Condition 31, the noise arising from the operations hereby permitted shall not exceed 47 dB L_{Aeq} 1 hour (free field) at any external amenity area of any of the residential properties at Greenfield Terrace, Apple Trees, Samson Avenue and Gladstone Terrace during Phase 1 of the scheme as defined in the drawings referred to in Condition 4.

34. During soil stripping, the construction and removal of the baffle mounds at the eastern boundary, soil storage mounds and water treatment areas noise levels may exceed the day time levels prescribed in other conditions over a period not exceeding 8 weeks in any one year but shall not exceed a daytime limit of 67 dB L_{Aeq} 1 hour (free field) at any external amenity area of any residential property or other receptor.

35. Best practicable means of noise reduction and noise mitigation shall be adopted at all times during site operations. The use of any reversing alarms on the site shall be restricted to the broad band type of alarm with reduced noise content.

36. Details of a groundwater monitoring scheme shall be submitted to and approved in writing by the Local Planning Authority prior to the commencement of development. This shall include the location, number and depth of monitoring wells as well as the frequency of monitoring groundwater levels and quality, together with determinants for analysis, to cover the periods prior to, during and after excavation and restoration works. The scheme shall be implemented as approved.

37. No development shall take place until a Verification Plan aimed at demonstrating completion of the works set out in the approved remediation strategy and the effectiveness of the remediation has been submitted to and approved in writing by the Local Planning Authority. On completion of site restoration a report shall be submitted to the Local Planning Authority which shall include the results of sampling and monitoring carried out in accordance with the approved Verification Plan to demonstrate that the site remediation criteria have been met. It shall also include a plan (a "long-term monitoring and maintenance plan") for longer-term monitoring of pollution linkages, maintenance and arrangements for contingency action, as defined in the Verification Plan, and for the report of this to the Local Planning Authority.

38. If, during the development, contamination not previously identified is found to be present at the site then no further development shall be carried out (unless otherwise approved in writing by the Local Planning Authority) until an amendment to the remediation strategy detailing how this unsuspected contamination shall be dealt with has been submitted to and approved in writing by the Local Planning Authority. The remediation strategy shall then be carried out in accordance with the approved amendment.

39. Reports on monitoring, maintenance and any contingency action carried out in accordance with a long-term monitoring and maintenance plan shall be submitted to the Local Planning Authority as set out in the plan. On completion of the monitoring programme a final report demonstrating that all long-term site restoration and monitoring have been undertaken and documenting the decision to cease monitoring shall be submitted to and approved in writing by the Local Planning Authority.

40. The development shall be carried out and operated in accordance with the principles of the Environmental Management Plan prepared by Cooper Partnership and contained in Part B of the Restoration Plan dated May 2009.

41. In the event of a cessation of the winning and working of coal prior to the planned completion, which in the opinion of the Local Planning Authority constitutes a permanent cessation within the terms of paragraph 3 of Schedule 9 of the Town and Country Planning Act 1990, a revised restoration scheme shall be submitted to and approved in writing by the Local Planning Authority within 6 months of the cessation of winning and working and shall be fully implemented within 3 years (excluding any aftercare) of the written approval, unless otherwise approved in writing by the Local Planning Authority.

42. No waste material (controlled or otherwise), topsoil, subsoil or minerals shall be imported on to the site.

43. No mechanical crusher or grader shall be operated on the site.

44. There shall be no use of explosives on the site for the duration of the operations hereby permitted.

45. No external lighting or floodlighting shall be used on the site unless otherwise approved in writing by the Local Planning Authority.