

Mid & East Antrim BC Preferred Options Paper – consultation comments

Minerals and Petroleum Branch/Geological Survey of Northern Ireland (MAPB/GSNI) welcomes the opportunity to engage with Mid & East Antrim Borough Council in the preparation of its Local Development Plan (LDP). This paper summarises a number of key issues which the Council may wish to consider with respect to their Preferred Options Paper.

MAPB/GSNI colleagues would welcome an opportunity to meet with the Council to discuss any issues that may arise from our response or offer any help that you may require. To arrange, please contact Lorraine Fleming Lorraine.Fleming@economy-ni.gov.uk or Yvonne Curran Yvonne.curran@economy-ni.gov.uk.

Minerals

Minerals are first mentioned in two subsections of the Strategic Objectives:

Economic objectives

j. To manage the use of energy, water, waste and mineral resources in an efficient and sustainable manner.

Environmental objectives

g. To support development that furthers local adaptation to climate change, for example through reduced carbon emissions and the efficient and sustainable use of water, energy, waste and mineral resources.

Under economic development, the council has recognised the potential benefit that mineral resources can have and proposes to build on this existing economic strength by growing the sector.

Section 6 deals with Mineral Development. Two Key issues have been identified and are to be addressed through the LDP.

Key Issue 12: Balancing the need for Minerals Development with safeguarding of Landscape and Environmental Assets

In addressing Key Issue 12 the council preferred option to safeguard mineral resources, identify mineral reserve areas and adopt a positive and balanced approach to mineral development is noted and welcomed. The council recognises the contribution that mineral resources located within the district council area make to the local economy. Presumption in favour of mineral development in reserve areas and presumption against development in constraint areas is in line with preferred options for other Council areas in Northern Ireland. The council has no policy position in the Preferred Option Paper which addresses the subject of high value minerals. Policies developed without the consideration of high value minerals may unnecessarily restrict the activities of DfE mineral prospecting licence holders and as a consequence limit the economic benefits which high value mineral discoveries may bestow. In line with paragraph 6.157 in the SPPS, there should not be a presumption against the exploration for valuable minerals in any area, including a statutory policy area.

Q27 Do you agree with our approach of identifying Mineral Reserve Areas where there would be a presumption in favour of minerals development?

DfE supports the identification of mineral reserve areas and the presumption in favour of development within them. In particular the protection of the Area of Salt Reserve should be retained due to the considerable economic benefit that salt extraction delivers to the Northern Ireland economy.

Q28. Do you agree with our approach of identifying Areas of Constraint on Minerals Development where there would be a presumption against minerals development?

Areas of Constraint on Mineral Development are valuable in the protection they offer against uncontrolled development. However, in considering the identification of such areas, the council should be aware of the impact that existing infrastructure and development has on the availability of minerals for extraction. When areas which cannot be developed due to the location of surface dwellings, roads or water features are removed the remaining resources availability can be reduced by up to 60%. This fact should be taken into account when defining areas of constraint to prevent the inclusion of potentially useful resource deposits within the constraint areas.

In relation to high value minerals, in line with paragraph 6.157 in the SPPS, there should not be a presumption against the exploration for valuable minerals in any area, including a statutory policy area.

This question is further addressed below in response to Question 32.

Q29 Are there any other areas you feel should be designated as a Mineral Reserve Area or as an Area of Constraint on Minerals Development?

DfE has not identified any additional areas of mineral reserve, but considers that the option for designating such areas should not be ruled out in the future, particularly in light of ongoing mineral exploration activity being carried out by DfE mineral prospecting licence holders in the MEA DC area.

Key Issue 13: Safeguard against potential subsidence and the effects of land instability

This key issue is addressed in the section below on Ground Stability.

Further issues concerning mineral development are addressed in:

- Key issue 26 – protecting regionally significant archaeological sites
- Key issue 32 – Lough Beg and the Lower River Bann Corridor
- Key issue 33 – Antrim Coast and Glens Area of Outstanding Natural Beauty

In each case the preferred options are to increase the protection of these sites from ‘harmful development’ which includes ‘mineral extraction’ and ‘mineral development’. Given the negative perception of associating mineral development with ‘harmful’ development, it is recommended that the term ‘harmful development’ is reconsidered and reference is made to adverse impact of certain types of development instead. In addition, the increased protection should be carefully balanced against the level of mineral development proposed and not result in a blanket ban on low impact exploration activity.

High Value Minerals

The council has no policy position in the Preferred Option Paper which addresses the subject of high value minerals. Policies developed without the consideration of high value minerals may unnecessarily restrict the activities of DfE mineral prospecting licence holders and as a consequence limit the economic benefits which high value mineral discoveries may bestow. Early stage exploration is low impact and has been carried out across Northern Ireland for decades with no long term effects to sensitive areas.

The area covered by the Mid and East Antrim District Council area is considered prospective for high value metallic minerals which collectively form the suite known as the platinum group minerals (PGM). These minerals are vested in the Department for the Economy. Metals of this group are associated with basalt type lava and are known to occur in other regions of the world where conditions promote the accumulation of economic deposits. Result from the Tellus project indicated the potential for PGM and as a direct result of the release of the survey data, Lonmin (NI) Plc applied for prospecting licences over areas of the Antrim Plateau, which is formed of basalt lavas. Two of the company licences cover a total area of approximately 390 km² of the Mid and East Antrim council area. Lonmin have been conducting prospecting activity within the council area since 2008, including the collection of soil samples for analysis, carrying out ground based geophysical surveys and an airborne gravity survey and drilling exploration boreholes. All activity has been carried out in accordance with the terms of the DfE licence, with the permission of landowners and, where required, the permission of the Department for Infrastructure. The work is ongoing and the company has indicated a desire to remain invested in Northern Ireland.

Because of the probable style of the deposit, the low impact exploration process is likely to take years. Any economic discovery which the company may make would most likely result in an underground mine, rather than a surface open pit operation. It should be noted that despite being considered prospective there is no guarantee that an economic deposit will be discovered. Ongoing exploration techniques are currently focussed on the analysis of data and information that have been collected to date, in an attempt to identify smaller target areas for further detailed exploration techniques.

Q32. Do you agree with the recommendations in the Policy Review to carry forward through the LDP existing (or amended) minerals policies MIN 1 – MIN 8

The regional minerals policies MIN 1 – MIN 8 remain valid and the proposal to carry them through is welcomed. However the following comments highlight some of the issues which the Council may wish to consider.

PSRNI Policy MIN1 Environmental Protection:

While the working of surface deposits of sand and gravel, hard rock aggregate and high value minerals has the potential to affect the natural environment from land take, dust, noise and visual amenity, underground mining techniques can exploit resources with less surface disruption and should be considered appropriately.

Surface deposits of sand, gravel and hard rock aggregate can be identified and zoned from existing mineral resource maps. They tend to be quite widely distributed and, therefore, there may be considerable flexibility when planning future development of these raw materials essential for infrastructure development and the construction industry.

By contrast, deposits of high value minerals are smaller in size, may occur at depths of hundreds of metres below surface and are much rarer in occurrence. Discovery of such deposits requires the application of a systematic and progressively focussed suite of exploration methodologies. In the initial stages of exploration, this involves surface and shallow sampling techniques which are short term (from days to a few weeks, at most) and have little or no long-term impact. The results of these reconnaissance surveys are used to identify areas of higher mineral potential and exclude large areas from further work. The remaining small highlighted areas are then the focus for more specialised exploration and appraisal techniques. In terms of planning policy, the potential impacts are dependent on the methodologies used and the sensitivity of the location. When mitigation measures are built into the design of the exploration programme any potential negative impacts can be avoided or significantly reduced, and the proposed activities assessed on a case-by-case basis. Exploration activities are generally subject to assessment under the relevant legislative instruments for environmental protection, by virtue of the consents required under the terms of the Mineral Prospecting Licences issued by the Department for the Economy.

SPSS 6.158, PSRNI Policy MIN2 Visual Implications

The policy on Visual Implications does not accommodate the development of high value minerals. Any proposal to explore for high value minerals should be considered in light of the proposed activity and not rejected outright for the reasons identified above.

PSRNI Policy MIN 3 Areas of Constraint

DfE recommends that Areas of Constraint on mineral development should not be used to apply blanket bans on exploration activities for high value minerals. This would be incompatible with SPPS 6.157. It is considered that Policy MIN 3 provides for exceptions to the presumption against the development of valuable minerals in Areas of Mineral Constraint.

However, although the policy states that there may be exceptions to MIN3 where ‘the proposed operations are short-term and the environmental implications are not ‘significant’, there is no definition of ‘short-term’. This may be important to consider where pre-development feasibility studies for underground mines for high value minerals can take a number of months or even years to complete. In this case, the nature of any surface operations and the environmental implications would presumably be the most relevant factors in any planning decision.

PSRNI Policy MIN 4 Valuable Minerals

Currently one company holds DfE Mineral Prospecting Licences for metalliferous minerals and Crown Estate options for gold and silver either wholly or partly within the M&EA BC area. MIN 4 states that there will not be a presumption against the exploitation of valuable minerals. It should be noted that precious metals (gold and silver) and other metalliferous minerals can be defined as ‘valuable minerals’ in addition to the examples given in MIN4. Implicit in this policy provision is that there should not be a presumption against the exploration for valuable minerals in any area, including a statutory policy area. The qualifier is that “due weight will be given to the reason for the statutory zoning” in the decision-making process, in addition to all the other pertinent factors. MIN4 has been incorporated into the SPPS in paragraph 6.157.

PSRNI Policy MIN 5 Minerals Reserves

The rationale for continuing with a general policy covering the identification and designation of areas as Minerals Reserves (or Minerals Policy Areas as they were previously called) still holds. The main reason for designating the reserves is that they may be strategically important mineral deposits. Though current techniques to exploit the resource may be uneconomic or considered

unacceptable, it is possible that new techniques may be developed in the future which would allow the resource value to be realised.

SPPS 6.159 PSRNI Policy MIN 6 Safety and Amenity

Considerations of safety and amenity should be made in the context of the nature, duration and proximity of any proposed development, and any mitigation measures included in the proposal. In terms of amenity, prospecting techniques used for high value mineral exploration may produce minor short term impacts. Low impact exploration activities may be possible under Permitted Development Rights whereas oil and gas exploration wells are likely to be deemed Environmental Impact Assessment developments and require planning permission. The potential impacts of any subsequent mineral developments on safety and amenity would clearly be subject to this policy and, by virtue of their longer duration, might be expected to have more significant potential impacts.

SPPS 6.160 PSRNI Policy MIN 7 Traffic

No additional comment.

SPPS 6.161 PSRNI Policy MIN 8 Restoration

Restoration of mineral extraction sites is an important part of any proposed development, although the extent and nature of restoration will vary according to the type of mineral extraction proposed (e.g. surface, underground). In all cases the restoration should be designed to secure the long-term safety and stability of the site and to prevent pollution whilst, for surface extraction sites, the remediation to visual landscapes and the potential to create amenity value would also be important factors. Long term monitoring may also be required, depending on the nature of the mineral development. Considering mineral development applications in terms of the full life cycle of the proposal may be beneficial as mineral development is transitory and environments can recover. Decisions could be assisted if developers are required to submit plans for final restoration of a site at the time of application, including a provision for ensuring that there will be funds in place to carry out the restoration. There may be a significant short term impact in some cases but consideration should be given to the possible medium or longer term recovery based on restoration plans built into the application. Particularly, as we can see from the landscape today, the impact of quarrying and mining can be managed and legacy workings can become part of the landscape if a reclamation plan is appropriate. This full cycle approach could help to achieve the aim of a balanced approach to the economy and the environment.

Land Stability

Mid & East Antrim District Council Overview

The Mid & East Antrim District Council area contains a total of 492 abandoned mine workings associated with historic salt extraction in the Greater Carrickfergus area and iron/bauxite ore extraction throughout the rest of the borough. This has resulted in a number of surface collapses throughout the borough, most notably in the Carrickfergus area. The steep sided glens and parts of the coastline contain areas susceptible to landslide events. Any development upon or downslope of these areas is at risk.

Compressible superficial deposits may cause issues to development. Areas of soft alluvium and peat in river valleys and inter-drumlin hollows, and peat in upland areas are classified as compressible ground. In coastal areas estuarine and raised marine deposits are also compressible. These compressible deposits require consideration in the design stage of any development.

Key Issue 13: Safeguarding Against Potential Subsidence and the Effects of Land Instability

In addressing this issue of safeguarding against potential subsidence and the effects of land instability, the council's preferred option to retain the existing BMAP Areas of Potential Subsidence and Policy CE 06 is welcomed. Also noted is the preferred option to assess other areas of potential subsidence and to prevent development in all areas known to be at risk from land instability. We welcome this approach which will minimise risk. The Council's preferred option protects against development in areas identified as highly unstable and also addresses the identification of other areas of potentially high risk. This approach is in line with regional strategic objectives which advise that development will not be permitted in areas of land instability.

Q30. Do you agree with our approach to retaining current BMAP Areas of Potential Subsidence and assessing if there are any other known areas of potential subsidence within the Borough that should be identified and designated as new Areas of Potential Subsidence?

DfE agrees that the Council should retain the current BMAP Areas of Potential Subsidence and assess other areas that are potentially susceptible to subsidence.

Q31. Are there any areas that you are aware of that should be identified as Areas of potential Subsidence?

The Geological Survey of Northern Ireland has information on the distribution of abandoned mines, landslip and compressible deposits which can be made available to the Council.

Q32. Do you agree with the recommendations in the Policy Review to carry forward through the LDP existing (or amended) ... Policy PSU 10 in relation to subsidence (land instability)?

The Department agrees that Policy PSU 10 Development at Risk should be carried forward through the LDP.