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Subject: Future of Ayrshire: views of the British Geological Survey

Ayrshire Joint Structure Plan; views and issues from British Geological Survey
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The British Geological Survey, as the UK's national provider of earth science information, is pleased to be able to provide a view on issues related to the Ayrshire Joint Structure Plan (AJSP). Below I note relevant earth science factors to be considered during the review.

Economic prosperity

Mineral resources, such as aggregate, road stone, limestone, building stone and coal, are essential to locally sustainable development. Inclusion of the identification and distribution of these natural geological resources in planning for economic development, for either abstraction now or for protection for future use, is essential.

BGS currently provides geological information as county mineral maps for local authorities in England and Wales, see www.mineralsuk.com for further information. We seek to co-ordinate support from local authorities and structure/mineral plans in Scotland in order to pursue central funding for these activities. The BGS are currently also developing a digital GIS 'Decision support' package which lists all known mineral resources, geology and links these to planning data to enable predictive decisions on resources and land use.

Tourist visits and experiences, traditionally for sporting and heritage activities, could be enhanced by increasing awareness of the many (often world famous) geological sites and landscapes along the south Ayrshire and Arran coastlines. BGS is actively involved in promoting geotourism and raising the public awareness of the landscape and earth science throughout Scotland and would be keen to see this included within the AJSP.

A future for communities

Maintaining the character and engendering a sense of community is difficult in areas that once thrived during the industrial revolution linked to the mining of coal and other natural resources. We suggest that evaluation of the post-industrial landscape, taking account of the geology, industrial archaeology, recent history and built heritage, will reinforce the value and ownership by local communities and encourage visitors to such declining areas. BGS, and other national organisations can provide scientific and historical data to furnish a greater appreciation of such areas for local inhabitants and visitors alike.

Linked to this is the recognition that an area needs care to maintain the local character of its built heritage. Towns within Ayrshire have a distinctive local character often derived from the building stone that

varies even within the county. Inappropriate repairs diminish that character

and may accelerate degradation of the traditional stone. Planning requirements should stipulate maintenance of that 'Ayrshire' look by use of appropriate natural building materials. Similar advice is also relevant for new builds and consistent with NPPG18 on the historic environment.

Housing land investment

The geology beneath your feet underpins all development and re-development. Broad, as well as detailed, knowledge of the ground conditions is a pre-requisite during the early stages in planning and selection of areas for housing, disposal, transport etc. An understanding of the geology linked to economic prosperity (see above) will enhance the assessment of construction materials, planning of a high-quality built environment and minimise costly rectification due to external factors such as ground stability, flooding etc in the longer term.

Green issues

A stated intent to prevent damage to the environment must include protection of groundwater as a natural resource. Groundwater is at great risk from pollution and degradation by inappropriate siting, development and construction of landfill and industrial sites. Planning requirements demand protection from pollution from these sources but often neglect the rural dimension where wide-spread diffuse pollution of shallow subsurface aquifers is taking place from agricultural activities.

Other issues: geodiversity

Linking many of the above issues is one additional factor that should be considered for planning. This is the concept of geodiversity. Geodiversity is an assessment of the geological and landscape value of an area and its links to land use and man's activities. It is a developing issue and like biodiversity is likely to become a requirement of local authority planning in the future. The BGS are currently building geodiversity audits and GIS datasets for various local authorities in England. These data link geology, landscape and resources and provide recommendations for appropriate use (i.e. educational, habitat, mineral resource, leisure etc) of abandoned, existing and future quarries and interpretation and value of landforms within an area. We have been frustrated to date by the lack of support from the Scottish Executive to develop these plans in Scotland.

I hope these outline points are informative and useful to AJSP. We are pleased to note that the AJSP makes mention of the use of earth science information for planning and that we have previously provided geological map data, extent of historical flooding inferred from alluvial deposits and limit of limestone resources for cement making. In recent years our capabilities have changed to encompass presentation of data in Geographical Information Systems and have received awards for the provision of scientific data in this way.

In previous years BGS staff have met with planning staff for South Ayrshire

and Mr John Esslement of the AJSP. It is perhaps apposite to renew these contacts and I would therefore like to invite members of the AJSP to visit

the British Geological Survey in Edinburgh to explore further how we might provide information of use to you. We would wish to discuss with you how additional data may be collected within Ayrshire and funding mechanisms to facilitate this. I suggest a date between 20 and 30 January 2004 or to suit AJSP.

Best wishes

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