Demonstration of GIS and online versions of environmental sensitivity mapping

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Environmental sensitivity mapping

Environmental sensitivity mapping provides a strategic overview of the environmental and cultural assets in a region. It is a technique that was developed to integrate numerous datasets into a single composite layer in a GIS. It uses a transparent methodology to provide the user with an easy to understand visual overview of these assets. Environmental sensitivity mapping is a rapid, objective and straightforward method of identifying areas which may be particularly sensitive to development.

Environmental sensitivity mapping has a number of applications in landscape planning for minerals and other forms of development. It may be used both to aid and explain decision-making. It can form part of the Strategic Environmental Assessment process and, more specifically, can be used in the environmental appraisal of plans and policies for aggregates provision.

Find out more below:
- Environmental sensitivity mapping - an overview
- View the online GIS
- Flexibility
- Method used to create the environmental sensitivity layer
- What are environmental and cultural assets?
- Consultation and feedback
- Background to the environmental sensitivity project
- Limitations and technical information

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Environmental sensitivity mapping

Background to the environmental sensitivity mapping project

The environmental sensitivity mapping methodology was developed by the BGS with co-funding from the Aggregates Levy Sustainability Fund (ALSF) distributed by the MIST Programme. Phase 1 of the BGS research, 'Strategic Environmental Assessment and future aggregates extraction in the East Midlands Region' aimed to develop the environmental sensitivity technique. The focus of the project was the relationship between aggregates and environmental sensitivity.

The Executive Summary or full report can be downloaded for free from here.

Phase 2 of the research aims to provide the environmental sensitivity map as a data layer within an online regional GIS for the East Midlands. The layer will be hosted on the mineralsUK.com website under the Minerals GIS pages. Click here to access the online GIS.

Click image to download Phase 1 flyer

Click image to download Phase 2 flyer

Environmental sensitivity mapping

Consultation and feedback

Consultation is integral to the development of the environmental sensitivity mapping technique. Your feedback and constructive criticism on any aspects of the environmental sensitivity mapping technique are welcomed. Your feedback may be used to add the critique of the environmental sensitivity data in the final report for this phase of the project (due for completion March 2006). Please email minerals@bgs.ac.uk

Your view on the environmental sensitivity mapping technique is a valued contribution to this project. To have you time acknowledged as such, please download & fill in this form and return to the freepost address shown.

Consultation seminars are planned for January 2006 in London, Nottingham and Leeds. Click here for details.

Office of the Deputy Prime Minister
Creating sustainable communities

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Environmental sensitivity mapping

View the online environmental sensitivity map

The environmental sensitivity map is being piloted using the East Midlands Region. It can be accessed via the UK Minerals Information Online. This provides a whole range of minerals related information for different regions in England. Follow the link below to view the online GIS and select the East Midlands Region from the drop down list. All the layers, including the environmental sensitivity layer, can be found down the left hand side of the map screen.

Click here to view the UK Minerals Information Online.

UK Minerals Information Online

Effective planning for the sustainable development of the UK’s mineral resources requires a wide range of up-to-date and impartial information. This web-based Geographical Information System (GIS) is designed to provide access to a range of minerals related information and allows it to be related to other forms of land-use (such as urban areas or nature conservation areas) or to other factors such as transport infrastructure. It can also be used to identify areas where mineral extraction may conflict with other landuse and conservation interests.

Aims and Limitations

The purpose of this GIS is to show:
- Mineral resources, which may be of current or potential economic interest
- Selected nationally-recognized landscape and habitat designations
- Land where minerals are, or have been, licensed for extraction (mineral planning permissions).

The GIS brings together this wide range of information, much of which is otherwise scattered and not always available in a convenient form.
Regional Minerals Information Online

Enter the Minerals Information Online site for the West Midlands Region

Enter the Minerals Information Online site for the East Midlands Region

This web Geographical Information System (GIS) provides online access to minerals-related information for the West and East Midlands Regions. Other English regions will become available over the next twelve months. It is a map-based site and is intended as a decision-support system for land-use planning at the local and regional scale.
Minerals Information Online

Change region
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Click layer names for details

Environmental Sensitivity

- Agricultural land Classification (suit & least suitable)
- Ancient Woodland
- Area of Outstanding National Beauty
- Conservation Area
- Community Forest
- Designated Green Belt
- Groundwater Source Protection Zone
- Historic Parks & Garden
- High Hall
- Millennium Green
- National Forest
- National Nature Reserve
- National Park
- Ramsar International Wetland
- Royal Society for the Protection of Birds Reserve
- Royal Society for the Protection of Birds Important Bird Area
- Scheduled Ancient Monument
- Special Area of Conservation
- Special Area of Scientific Interest
- Special Protection Area
- Woodland Trust
- Local Nature Reserve
- Total number of assets present

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Minerals Information Online

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Click layer names for details

Area of Outstanding National Beauty

The purpose of an Area of Outstanding Beauty is solely to conserve the natural beauty of the landscape rather than to provide means for public access and enjoyment as is the case with National Parks. Under the Countryside and Rights of Way Act (2000), many of the provisions relating to National Parks have been extended to AONBs and as such they afford the same protection as National Parks.

Asset type: Landscape

Obtained from: MAGIC Website

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- http://www.english-heritage.org.uk/

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GIS version

- has more functionality
- is not scale dependent
- more data layers
For thought and feedback

• How would/ do you use our data?
• Do you prefer to use the web GIS or have the data layers in your own GIS package?
• Would you prefer a regional view or a site specific view?
• How can we improve upon our datasets and/or information delivery methods to serve you better?