

**NOT JUST NEWTS!
SEMINAR ON MINERALS RESTORATION AND BIODIVERSITY**

Barnham Broom, 21 June 2006

Summary of Presentations

**Dr Gerry Barnes, Environment Manager (Operations), Norfolk County Council
and Chairman, Norfolk Biodiversity Partnership**

Welcome and Introduction to the Objectives of the Workshop

- ❖ Dr Gerry Barnes explained that the seminar had been organised by Norfolk County Council, which acts as the minerals planning authority for the county, and the Norfolk Biodiversity Partnership, a group of organisations dedicated to the conservation and enhancement of the county's wildlife.
- ❖ The overall objectives of the seminar were: to have a discussion about the positive contributions the mineral industry can make to both biodiversity, landscape and geological diversity; to contribute to the Norfolk Minerals Development Framework; and to seize the opportunities currently presented by the rapidly changing circumstances within the Norfolk countryside.

Heidi Thompson, Ecology Manager, Norfolk County Council

Biodiversity and Ecological Networks: The Contribution the Minerals Industry Can Make

- ❖ Biodiversity is still in decline in Norfolk, and this is an indication that current approaches are not working.
- ❖ Wildlife habitats have become increasingly isolated and fragmented, and surrounded by hostile land uses. The ecological network approach aims to link up and enhance these existing sites to form an integrated system across the county.
- ❖ Ecological networks are specifically mentioned in Planning Policy Statement 9 on Biodiversity and Geological Conservation. PPS 9 emphasises the importance of supporting ecological networks within local plans and LDFs.
- ❖ Maps outlining an ecological network for Norfolk are currently being completed by the Biodiversity Partnership. Minerals restoration could play an important role in establishing the ecological network on the ground, by promoting habitat re-creation at key sites to help form corridors and stepping stones for wildlife (eg, heathland between the Brecks and West Norfolk).
- ❖ It is recommended that the new Minerals Development Framework accord high priority to restoration to BAP habitats, rather than to arable or deep water lakes of little biological interest.

- ❖ Mrs Thompson noted that minerals operators often do not own the sites on which they work, and that restoration programmes need the approval of the land owners. The new agri-environment programmes (eg, the Higher Level Schemes) provide payments for restoration to BAP habitats, and this should prove to be an incentive. Gerry Barnes noted that funds are also available from other sources, such as the England Woodland Grants Scheme.
- ❖ An excellent reference is the English Nature publication, “*Biodiversity and Minerals: Extracting the Benefits for Wildlife. A Guide to Planning, Operating, Restoring and Managing Mineral Sites for Biodiversity.*”

Berni Marfleet, Head of Planning & Transport Strategy, Norfolk County Council
The Planning Perspective: An Update on the Minerals LDF and What Makes a Good Planning Application

- ❖ Key issues within the national policy context are sustainable development, climate change, biodiversity and geodiversity. Planning Policy Statement 9 on Biodiversity and Geological Conservation represents an important shift away from a narrowly-focussed, site-based approach towards a more holistic and proactive approach to conservation and enhancement. Planning Policy Statements carry much more weight than the previous system of Planning Policy Guidance.
- ❖ The Norfolk Minerals and Waste LDF is currently under development. The Local Development Scheme has been agreed and the Statement of Community Involvement has been adopted. It is expected that the Core Strategy will be adopted in 2007, allocations in 2009, and development control policies in 2010.
- ❖ Good applications are those which are in accordance with the Development Plan and which propose mineral workings at the right place and at the right time. The County Council welcomes informal enquiries and early discussions, and is also happy to comment on draft applications. It is important to involve consultees such as the Environment Agency and English Nature.
- ❖ Good applications should demonstrate a proactive approach to biodiversity. They should be: sensitive to the surrounding area; enhance, restore or re-create habitats where possible; and seek opportunities to create ecological networks. Applications should be thoroughly prepared and based on full information derived from surveys and assessments. The order of preference for new minerals operations is: previously worked land; then unworked land banks; and lastly, landowners’ other holdings.
- ❖ There is a requirement to provide five years of after-care. Longer-term management should address issues such as access to the public and schools. The involvement of local communities should be actively promoted.
- ❖ Good sources of information include: the ODPM publication, *Planning for Biodiversity and Geological Conservation: A Guide to Good Practice*; the Norfolk Biodiversity Supplementary Planning Guidance; the Association of Local Government Ecologists (ALGE); the RTPI Good Practice Guide, *Planning for Biodiversity*; and QPA/EN guidance.

- ❖ In closing, Mr Marfleet emphasised that the record of an operator can have important ramifications, and that a good record can lead to significant PR benefits.

Scott Perkin, Biodiversity Co-ordinator, Norfolk Biodiversity Partnership
The Norfolk Biodiversity Partnership

- ❖ The Norfolk Biodiversity Partnership is comprised of 16 different organisations, including all the local authorities in Norfolk, statutory agencies (eg, English Nature, the Forestry Commission and the Environment Agency), and voluntary groups (eg, Norfolk Wildlife Trust and RSPB). These organisations share a common vision – the development and implementation of the Norfolk Biodiversity Action Plan (BAP).
- ❖ The Norfolk BAP is not a single document but rather, a collection of many different Species and Habitat Action Plans, aimed at conserving some of the county's most threatened biodiversity. There are now over 60 different action plans in various stages of development and implementation. These can be useful tools in guiding minerals restoration.
- ❖ Final drafts of all action plans are placed on the Norfolk biodiversity website: www.norfolkbiodiversity.org.

Judith Cantell, Senior Landscape Architect, Norfolk County Council
The Landscape Perspective

- ❖ Landscape is about the relationship between people and place, and is an important part of the quality of life. Traditionally, landscape focused on scenic quality, but it now embraces biodiversity, cultural/historical factors and individual/collective memories.
- ❖ There are a number of tools which can be used to help guide the minerals industry and ensure that restoration efforts are sensitive to landscape concerns. These include: Landscape Character Areas; Landscape Description Units; and Historic Landscape Characterisation. The Norfolk biodiversity website and the ecological networks project are also good sources of information.
- ❖ When designing restoration programmes, it is also critically important to visit the site, in order to: view its context; record important view points; consider mitigation requirements and assess the potential for future public access. Wherever possible, the local community should be consulted and involved.
- ❖ In considering after-use, it is important to consider the long-term management of the site and the way in which this may be sustained. Operators should also consider extending improvements onto “blue land” (ie, land which is in their or the landowner's control but which lies outside the application area), if this leads to a more holistic solution which can be more easily managed.
- ❖ Two case studies were presented in some detail: the Kirby Cane sand and gravel quarry, and the Bergh Apton former quarry and landfill site.

- ❖ In closing her presentation, Ms Cantell posed the question: should arable restoration be considered at all? She noted that there are differing views on this, but that it would help applications if: restoration is appropriate to landscape character and if arable restoration is friendly to both wildlife and people.
- ❖ Ms Cantell raised Grandcourt Farm (Leziate) as an example where restoration to arable should be considered, as this is Grade II agricultural land. In the discussion which followed, however, a participant from the Wildlife Trust noted that this area is a potentially important stepping stone to help connect adjacent wildlife sites, and suggested that restoration to heathland would be more appropriate. No clear consensus on this issue was reached.

Bill Boyd, West Norfolk Site Manager, Norfolk Wildlife Trust
A Practical Guide to Restoring Heathland on Former Minerals Sites in Norfolk

- ❖ Old mineral sites often provide the perfect conditions for recreating heathland. The acid substrate and low nutrient levels make it a far easier operation than on former forestry or arable land.
- ❖ The site should be roughly levelled, then harrowed to provide a series of ridges and troughs to prevent losing seed to wind blow.
- ❖ Pure seed or cuttings may be used. These should be harvested from a local site (certainly within Norfolk) in late November. NWT are major landowners of heathland and may be able to supply seed.
- ❖ Seed/cuttings should be spread thinly to reduce costs and because bare ground is a valuable habitat. It may not be necessary to sow a nurse crop of grass in Norfolk.
- ❖ The site should be ungrazed for three years, but weed control (birch, pine and bracken) will be necessary. Grazing is the most desirable long-term form of management.

Jo Parmenter, The Landscape Partnership
Restoration of Mineral Sites for Biodiversity: Some Examples from the Real World

- ❖ TLP has considerable experience of re-creating ecologically valuable habitats on minerals sites within Norfolk. These should be appropriate to the area of the county, substrate, hydrology and contribute to BAP targets.
- ❖ Wetland habitats may be used to reduce the amount of open water on the site in favour of more interesting habitats such as reed bed, wet fen, tall herb fen and wet woodland.
- ❖ Drier areas of the site may be used to create habitats such as heathland, chalk grassland and species rich meadow. It is important to consider long-term management of all these habitats.

- ❖ There are many opportunities for the conservation of rare and protected species, over and above the bare minimum necessary to comply with relevant legislation. In particular, gravel pits can be very important for invertebrates, which are often overlooked.
- ❖ Dr Parmenter then ran through a series of real-world examples from Norfolk and Suffolk, including restoration projects at Watermill Farm, Oxborough Woods, and Lignacite, Brandon.

Anna Jarrow, British Geological Survey
Geodiversity on Minerals Sites

- ❖ Geodiversity is the variety of rocks, minerals, fossils, soils and landforms, together with the natural processes which shape the landscape. Norfolk is an extremely exciting county from a geodiversity perspective as it contains the most complete sequence of lowland glacial deposits in the UK.
- ❖ Much biodiversity depends on the underlying geology. Ms Jarrow explained the solid and quaternary geology of Norfolk and the importance of the influence of glaciers.
- ❖ Geological conservation techniques differ in a number of ways from those used to conserve biodiversity. The most important requirement is to maintain an open face, and this may require measures to protect the site from sloping, vegetation re-growth and other factors. These issues are fully explained in the English Nature document, "*Geological Conservation – A Guide to Good Practice*."
- ❖ Ms Jarrow explained the purpose and operation of Regionally Important Geological and geomorphological Sites (RIGS). This is a non-statutory designation which complements geological SSSIs. A number of RIGS have been identified in Norfolk and there are plans to reactivate the Norfolk RIGS Group.
- ❖ The British Geological Survey has been working with Norfolk County Council on a project at Blakeney Esker called "Blakeney Esker Explored". The principal output is a website which can be viewed at <http://www.bgs.ac.uk/blakeney/Index.htm>. This contains teaching resources for schools and colleges.