



The National Trust Geological Policy

The National Trust considers geology to be the foundation of our natural and cultural environment. Geology strongly influences the landscape and wildlife, and is the basis of all landforms, including soils, as well as all life forms. It is a vital record of how the Earth has evolved over hundreds of millions of years. This incredible geological diversity forms a valuable resource that is used for educational and research purposes, as well as by the manufacturing and construction industries.

This policy draws heavily on previous subject and discussion papers and provides a link with Trust policy on nature conservation. It is an attempt to bring together and set out the Trust's policy towards the conservation of its extensive and significant geological resource and in safeguarding the conservation interests and natural processes associated with the wider geological environment.

This policy includes features such as: exposures, quarries, mines, and cliffs; caves, karst, landforms, landscapes and processes; fossils, rocks and minerals; and makes reference to the built environment. For geological collecting refer to the Trust's *Policy for the Collection of Geological Materials (Fossils, Rocks and Minerals)*.

GEOLOGICAL POLICY

- The Trust will care for the natural and cultural geological significance of all our properties.
- The Trust will inform conservation and manage change in the geological environment and its features through learning, identifying, recording, understanding and communicating its significance.
- The Trust will share the geological significance of our properties with members, visitors and stakeholders for all to appreciate and enjoy.

The significance of geology

As a consequence of the National Trust Act 1907 the Trust was one of the first organisations to be set up with the conservation of wildlife habitats and geological features amongst its express objectives.

One hundred years on, the Trust is now custodian of a large number of very dynamic sites and features of geological importance throughout, England, Wales and Northern Ireland. Many of these sites are, nationally or locally important and are listed in JNCCs *Geological Conservation Review*. Nationally important sites are designated as Sites or Areas (in Northern Ireland) of Special Scientific Interest (SSSIs/ASSIs), locally important sites are recognised as Regionally Important Geological and geomorphological Sites, (RIGS) or, in Northern Ireland, as Sites of Local Nature Conservation Importance (SLNCI). Some of these sites fall within Geoparks and Areas of Outstanding Natural Beauty (AONBs) and a few have even been awarded international recognition through Special Areas of Conservation (SACs) and or World Heritage Site status. The Trust may also care for

geological sites other than those that have been designated or recognised. Appendix 1 lists some examples of geological sites on Trust properties. Also, see the Geology section on the Nature pages of the Trust website.

The Trust's geology makes a magnificent contribution in shaping the landscape, the historic, local and built environment; in the characteristic soils and wildlife it supports; in the dynamic habitat it creates for plants and animals; and as places for education, research, recreation, inspiration and enjoyment.

Threats and Issues

- Development, including coastal defence.
- Declining condition e.g. vegetation encroachment obscuring geological features, levelling of mine spoil
- Inappropriate educational or recreational activities
- Irresponsible specimen collecting and extraction
- Intensive land uses impacting on karst
- Sand and gravel removal and quarrying
- Offshore marine aggregate dredging damaging onshore beaches.
- Loss, including climate change induced coastal erosion (although this could lead to increased open exposure).

Our approach

The Trust will take a long term, strategic and practical approach to caring for its geology and one that seeks to work with natural processes, wherever possible.

Current best practice in geological conservation procedures, including the *Earth Science Conservation Classification*, (Prosser *et al* 2006) together with Local Geodiversity Action Plans and Trust policies, especially the *Policy for the Collection of Geological Materials (fossils, rocks and minerals)* will be used to identify at local level the appropriate management of geological sites. Other relevant policies and procedures are listed in Appendix 2 and 3.

The Trust will adopt the good principles and practice already identified in such policies and apply these to caring for its geological resource. These include: the identification of the resource; the recognition of the natural, cultural, historic and economic aspects of its assets; understanding the natural processes that are affecting or might affect those assets; assessing the vulnerability and risks; identifying the options; involving the local community and other stakeholders in decision-making, where relevant; and communicating a sustainable way forward.

Our management principles

- The Trust accepts that its geological resource is dynamic and that some will be lost, gained, modified, or replaced through natural processes.
- The Trust recognises that landscapes develop over time through processes of erosion and accretion and will embrace such changes and encourage their study for educational and research purposes.
- The Trust will adopt management solutions which can enable, or adapt to

processes. It will interfere with natural processes only where it believes there to be an overriding environmental, social or economic benefit, scientific interest and/or for reasons of health and safety.

- Valued geological features threatened by natural processes may be conserved as far as is practical, whilst not necessarily seeking to protect them indefinitely. The Trust will encourage the recording of such features, where relevant, before they are removed or lost.
- The Trust will identify and acknowledge the geological component/features of a site, both 'natural' and 'built', and its significance in its Property Management Plans, Whole Farm Plans, Nature Conservation Evaluation reports, Nature Conservation Policy, Country/Regional Nature Conservation Strategies and other documents, as relevant. It will address damaging activities, make appropriate management decisions and encourage monitoring and promotion of sites.
- The Trust will strive to use and re-use local materials for the conservation of its built structures (e.g. walls, footpaths, roads and houses) and where possible, supports the retention and opening up of small local quarries to source appropriate material. It acknowledges that sometimes such quarries can be in sensitive locations on or off Trust land.
- Where appropriate, the Trust will include information on the geological interest of both 'natural' and 'built' sites on interpretation boards and in property leaflets; hold guided walks and talks; and include geology in specialist nature conservation and other relevant training courses.
- The Trust will keep exposures of geological interest open, as far as is practical, and actively promote access to them, subject to conservation and safety considerations (including site fragility and vulnerability), in order to provide public enjoyment, recreational, educational, research and interpretation opportunities.
- The Trust will liaise and work with other managers, organisations, interest groups, and engage with communities and volunteers to: promote the resource and a shared understanding of the Trust's geological policies and practices at all levels; share experience and knowledge and secure beneficial outcomes.
- The Trust will identify and establish specialist geological advisory sources through developing a register of staff, volunteers and contractors who have an interest in and the potential to incorporate geology into Trust activities and initiatives.
- The Trust will integrate geology into its policies and practices for the acquisition and subsequent management of land. It will work with the Country agencies to ensure that at least 95% of its geological SSSIs/ASSIs are in favourable condition.
- The Trust will engage with the geological community to help influence policy makers whose decisions may have an adverse impact on the conservation of geological features.

Appendix 1 - Examples of some National Trust geological sites

| NT property | Feature |
|---|--|
| Brecon Beacons | Large scale glacial landform and also smaller post glacial features (moraines) |
| Cadair | Glacial and peri-glacial landforms |
| Calke Abbey | Scarp and dip slope features |
| Cheddar Gorge | Narrow, deep limestone cleft |
| Cwm Idwal | Cirques or cwms |
| Dolaucothi Estate | Gold and other minerals |
| Fontmell Down | Dry valleys |
| Formby and Purbeck Estates | Fossilised footprints - human (Formby) and dinosaur (Purbeck) |
| Giants Causeway | Igneous rocks of past volcanic activity |
| Golden Cap Point | Jurassic coast |
| Heddon valley | Peri-glacial screes |
| Incombe Hole, Ashridge Estate | Glacial combe (sometimes called a nivation hollow) |
| Isle of Wight | Fossils and dinosaur bones |
| Long Mynd | Ediacaran (pre-Cambrian) rocks |
| Lydford Gorge | River capture and classic fluvio-glacial gorge |
| Malham Tarn | Cave systems and limestone pavement |
| Murlough Dunes, Co. Down | Contemporary coastal processes |
| Orford Ness | Complex shingle ridges |
| Pembrokeshire and Carmarthenshire | Biostratigraphic research sites |
| Pembrokeshire and Gower Peninsula | Coastal landforms |
| Penrose Estate | Loe bar shingle ridge |
| Purbeck Estate | Areas of quarried limestone providing exposures of the Portland Stone and the basal Purbeck Formation. |
| Rough Tor on Bodmin Moor & Upper Plym on Dartmoor | Granite tors |
| Seathwaite and Force Crag in the Lake District | Unique graphite and lead-zinc-baryte mines |
| Sand Point | A raised beach |
| The Manger, White Horse Hill | Karst landscape |
| Trebetherick Point, North Cornwall | Fossilised submerged forests |
| Wenlock Edge | Steep Silurian limestone escarpment and coral patch reefs |
| West Dorset, North Yorkshire | Fossils of a wide variety of organisms |
| West Penwith | Granite exposures and associated mineral veins; beach rounded boulders |

Appendix 2 - Other relevant Trust policies – see Intranet and Internet or contact relevant staff for further information on these publications

- *Collection of geological materials (fossils, rocks and minerals)* (2007)
 - *Nature and the National Trust* (2005) – central nature conservation policy
 - Country and Regional Nature Conservation Strategies (via Country/Regional Nature Conservation Advisers)
 - *Coastal Policy* (2005)
 - *Shifting Shores - Living with a changing coastline* (2005)
 - *Soils Policy* (2000)
 - *Water Policy* (2006)
 - *Climate Change - Coast and River Basins* (draft 2005)
 - *Whole Farm Plans - farm assessment and action plan* (2001)
 - *Policy for the Use of Peat in Gardens* (1999)
 - *Archaeology and the National Trust* (2003)
 - *Open Countryside Report: Part A. Principals for Access, Part B. Managing for Access, & Part C. Recreational Activities: Guiding Principles, Practices and Impacts* (1995)
 - *Recreational Activities: Guiding Principles, Practices and Impacts* (2000)
 - *Policy for the re-opening of National Trust Quarries for the Provision of Building Stone* (in prep 2007)
 - *Health and Safety: Conservation Safety Manual* (1999)
-
- Water Resources Risk Assessment (has geological database)
 - Coastal Risk Assessment (via Land & Property Data Officers)
-
- The National Trust 1907 Act
 - The National Trust Byelaws
- The National Trust website: http://www.nationaltrust.org.uk/main/w-chl/w-countryside_environment/w-nature/w-nature-geology.htm#northern_ireland

Appendix 3 - External references and sources of information

- Defra. 2006. *Local Sites- Guidance on their Identification, Selection and Management*. Defra, London. <http://www.defra.gov.uk/>
- English Nature. 2004. *Local Geodiversity Action Plans, sharing good practice*. English Nature. Peterborough
- JNCC Geological Conservation Review Series <http://www.jncc.gov.uk/page-2947>
- *Minerals Policy Statement 1: Planning and Minerals* 2006 Communities and Local Government Publications. <http://www.communities.gov.uk/index.asp?id=1504271>
- *Minerals Policy Statement 1: Practice Guidance* 2006 Communities and Local Government Publications. <http://www.communities.gov.uk/index.asp?id=1504271>
- *Planning for the Supply of Natural Building and Roofing Stone in England and Wales* 2004 Communities and Local Government Publications. <http://www.communities.gov.uk/index.asp?id=1500952>
- *Planning Policy Statement No. 9 Biodiversity and Geological Conservation* 2005. TSO Norwich. <http://www.communities.gov.uk/index.asp?id=1501970>

- Prosser, C. Murphy, M. and Larwood, J. 2006. *Geological Conservation a guide to good practice*. English Nature. Peterborough
- River Basin Plans
<http://www.defra.gov.uk/enviro/fcd/policy/strategy/wfd.htm#rbmps>
<http://www.environment-agency.gov.uk/business/444217/444663/955573/1458449/?version=1&lang=e>
- Shoreline Management Plans
<http://www.defra.gov.uk/enviro/fcd/policy/smp.htm>
- Stace, H. and Larwood, J.G. 2006. *Natural foundations: geodiversity for people, places and nature*. English Nature. Peterborough.
- UKRIGS Development Strategy 2006-2010
<http://www.ukrigs.org.uk/html/ukrigs.php?page=devstrat&menu=main>

Appendix 4 - Useful contacts and websites

- Natural England (formerly English Nature) <http://www.naturalengland.org.uk/>
- Countryside Council for Wales <http://www.ccw.gov.uk/>
- NI Environment and Heritage Service
<http://www.ehsni.gov.uk/>
- JNCC <http://www.jncc.gov.uk/>
- UK Regionally Important Geological and geomorphological Sites (RIGS) groups
<http://www.ukrigs.org.uk/html/ukrigs.php>
- British Geology Survey <http://www.bgs.ac.uk/>
- Earth Science Teachers' Association <http://www.esta-uk.org/main.html>
- European Geoparks <http://www.europeangeoparks.org/>
- Geologists' Association <http://www.geologist.demon.co.uk/index.html>
- The GeoConservation Commission <http://www.geoconservation.com/>
- The Geological Society
<http://www.geolsoc.org.uk/template.cfm?name=geohome>
- The Russell Society <http://www.russellsoc.org/index.htm>

Appendix 5 – List of Consultees

Internal

| | |
|---|--------------------|
| Archaeology Adviser | Thackray, Caroline |
| Area Manager - South Wales | James, Phillip |
| Area Manager Suffolk/Essex/Herts | Turner, Keith |
| Area Manager, Lanhydrock | Davey, Andrew |
| Area Warden, Lizard | Whitehouse, Justin |
| Assistant Director of Policy - Environment & Land Use | Robinson, Ellie |
| Biological Survey Adviser | Foster, Andy |
| Coastal Warden West Sussex | Lawrence, Andrew |
| Conservation Undergraduate Assistant | King, Hannah |
| Conservator and Adviser on Natural Sciences | Moore, Simon |
| Countryside Manager Helston | Cameron, Alastair |
| Countryside Manager Purbeck | Hodd, David |
| Countryside Manager South Peak | Mortimer, Paul |
| Countryside Manager Zennor | Brookes, Jon |
| Director of Conservation | Nixon, Peter |
| Head of Archaeology | Thackray, David |
| Head of Buildings | Cullen, Rory |
| Head Curator | Adshead, David |
| Head of Environmental Practices | Jarman, Rob |
| Head of Gardens and Parks | Calnan, Mike |
| Head of Health and Safety | Daniels, Mark |
| Head of Land Use Planning | Watson, Alan, |
| Head of Nature Conservation | Bullock, David |
| Head of Rural Surveying | Evans, David |
| Head Warden Gower | Musgrave, Sian |
| Head Warden IoW | Lang, Robin |
| Head Warden Pembrokeshire | Ellis, Richard |
| Head Warden West Dorset | Rhodes, Rob |
| Head Warden, Brecon | Dagget, Joe |
| Health and Safety Officer, West | Morgan, Dale |
| Inventory Co-ordinator, Territory South | Brown, Hugo |
| Land Use Director | Riddle, David |
| Learning & Interpretation Officer Shropshire Hills | Stratton, Chris |
| Nature Conservation Adviser North | Hearn, Katherine |
| Nature Conservation Adviser South | Oates, Matthew |
| Nature Conservation Adviser, Devon & Cornwall | Lister, Janet |
| Nature Conservation Adviser, East Midlands | Hawke, Carl |
| Nature Conservation Adviser, East of England | Warrington, Stuart |
| Nature Conservation Adviser, North West | Hooson, John |
| Nature Conservation Adviser, Northern Ireland | Davidson, Phil |
| Nature Conservation Adviser, South East | Humphreys, Simon |
| Nature Conservation Adviser, Thames & Solent | Hodgkins, Joanne |
| Nature Conservation Adviser, Wales | Buckingham, Helen |
| Nature Conservation Adviser, West Midlands | Barker, Simon |
| Nature Conservation Adviser, Yorkshire & North East | Morley, Stephen |
| Nature Conservation Panel | Anderson, Penny |
| Nature Conservation Panel | Bonner, Ian |
| Nature Conservation Panel | Flegg, Jim |
| Nature Conservation Panel | Peterken, George |

Nature Conservation Panel
Nature Conservation Panel
Nature Conservation Panel
Nature Conservation Panel
Nature Conservation Panel (Chair)
NT Council Member
Preventive Conservation Adviser
Property Manager Carneddau & Glyderan
Property Manager IoW
Property Manager Orfordness
Property Manager South Peak Estate
Property Manager West Dorset
Property Manager Yorkshire Coastal Estates
Property Manager, Snowdonia
Regional/Country Directors
Registrar
Senior Rural Surveyor Eastleigh Court
Volunteer Geologist South Peak
Warden Purbeck Estate & Studland Beach
Ecologist Purbeck
Ecologist Shropshire Hills

Powell, Anne
Streeter, David
Sutherland, Bill
Wyn-Jones, Gareth
Morris, Pat
Farly, John
Macalister, Fiona
Jones, Elfyn
Tutton, Tony
Lohoar, Grant
Thompson, Andrew
Mann, Helen
Cunningham, Mel
Jones, Keith

Brownen, Chezzy
Carmichael, Louise
Allen, Mike
Kershaw, Jonathan
Peters, Angela
Uff, Caroline

External

Assistant Editor *Geology Today* (Geological Society and the Geologists Association)

Avon RIGS

Camborne School of Mines

CCW

CCW

Chairman Association of Welsh RIGS

DIGS

Dorset RIGS

Earthwords

Geoconservation Commission

Geoconservation Commission

Geoconservation Commission

Geoconservation Commission

Geoconservation Commission

Geoconservation Commission

Geoconservation Commission

Geoconservation Commission

Geoconservation Commission

Geoconservation Commission

Geoconservation Commission

Geoconservation Commission

Geoconservation Commission - CCW

Geoconservation Commission - DOE NI

Geoconservation Commission - English Heritage

Geoconservation Commission - JNCC

Geoconservation Commission - UK RIGS

Robinson, Eric Dr
Mathieson, Andrew
Pine, Bob Prof
Blackstock, Tim
Howells, Sid
Fitches, Bill
Thomas, Jo
Chaffy, John
Macadam, John
Brown, Susan
Campbell, Stewart
Cleal, Chris
Doughty, Peter
Doyle, Peter
Durham, Emma
Gray, Murray
Hart, Malcolm
Macfadyen, Colin
Maxwell, Ingval
McMillan, Andrew
Stanley, Mick
Weighell, Tony
Wimbledon, Bill
Elander, Ian
Payne, Sebastian
Ellis, Neil
Burek, Cynthia Prof.

Geoconservation Commission - World Museum Liverpool
Geoconservation Commission - Dorset CC
Geoconservation Working Group/Plymouth University
Geological Curators Group Manchester Museum- Chair
Geological Museum London - NHM
Natural England
Natural England/Geoconservation Commission
Professional Fossil Collector West Dorset
Shropshire Geological Society & Forum
Shropshire Geological Society & Forum
Somerset RIGS
The Geologists' Association
The Russell Society
The Wildlife Trusts
The Wildlife Trusts
UK RIGS
UNESCO
University of Wales Aberystwyth

Morgan, Tony
Edmonds, Richard
Page, Kevin Dr
Edwards, Mandy
Collins, Chris
Larwood, Jonathan
Prosser, Chris
Sole, David
Etheridge, Liz
Toghill, Peter Dr
Prudden, Hugh
Benton, Mike Prof
Ince, Frank Dr
Everitt, John
Hawkins, Katherine
Reynolds, John
McKeever, Patrick Dr
Thomas, Barry Prof.
Brunsdon, Denys
Harvey, John

We would like to thank all those who commented on this document.

Lucy Cordrey

Nature Conservation Technician, Heelis, Swindon

Simon Ford

Nature Conservation Adviser, Wessex