

GEOLOGY IN LOCAL AUTHORITY PLANNING

An outline guide to inclusion of geological heritage in County Development Plans and Heritage Plans

January 2008

An earlier draft of this document was supplied to all Heritage Officers and Local Authority Planning Departments in May 2003.

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Geology is now recognised as an intrinsic component of natural heritage in three separate pieces of legislation or regulations, which empower and require various branches of Government, and statutory agencies, to consult and take due regard for conservation of geological heritage features: Planning and Development Act 2000 [e.g. Sections 212 (1) f; Part IV, 6; Fifth Schedule Condition 21], Planning and Development Regulations 2001, Heritage Act 1995, and the Wildlife (Amendment) Act, 2000. The Heritage Act, and the Planning Regulations in particular, place responsibility upon Local Authorities to ensure that geological heritage is adequately addressed within Heritage Plans, as well as integrated into revised County Development Plans. This can be difficult for Local Authorities if they do not employ any geologists, and few Heritage Officers possess any advanced training in geology. This is often difficult for Local Authorities as none employ any geologists, and very few Heritage Officers possess any specific knowledge or expertise in geology.

To remedy this expertise deficit, and assist statutory bodies meet their statutory obligations, the Geological Survey of Ireland established the Irish Geological Heritage (IGH) Programme in 1998. The programme has the primary objective of identifying and selecting those sites that best represent the geological heritage of Ireland, for designation as Natural Heritage Areas.

The GSI now has the expertise, knowledge and experience to be able to assist Local Authorities in all matters relating to geological heritage, including incorporation into Development and Heritage Plans. Inputs into both the latter plans are considered in further detail in the following sections.

For further information or advice please contact: Sarah Gatley, 01-6782837 or sarah.gatley@gsi.ie, or visit the IGH section of the GSI web site at: <http://www.gsi.ie/Programmes/Heritage+and+Planning/>

(Matthew Parkes, who formerly implemented much of the IGH programme work, can still be contacted in The National Museum of Ireland at 01-6777444 or mparkes@museum.ie on certain Heritage issues, such as Mining Heritage - see below.)

GSI publishes a very wide range of maps, reports and products on various aspects of geology, most of which will include information relevant to specific Local Authority areas.

For information about such paper products, visit the GSI e-store at: <http://www.gsi.ie/Services/Customer+Centre/>

Some information is also available in digital formats. For further information about such products, including charges, contact: Ray Scanlon, 01-6782740 or Ray.Scanlon@gsi.ie

We would strongly recommend that each Local Authority obtain, if it has not already done so, copies of both paper and digital products which are relevant to their jurisdictional information requirements, as such resources provide a framework for dimensions specific to geological heritage aspects. In the following sections we examine how GSI may be able to assist Local Authorities to prepare the geological dimensions of Heritage and Development plans. We provide also various suggestions of actions and initiatives which illustrate how the sustainable use of geological (and mining) heritage may be advanced for the benefit of both the region and local communities.

COUNTY DEVELOPMENT PLANS

The following points are suggested by the Irish Geological Heritage Programme of the Geological Survey of Ireland, as appropriate ways in which to address the need to protect geological heritage in any one of Ireland's counties:-

As a minimum, GSI would like the Local Authority to include a policy objective with wording such as:

"to protect from inappropriate development the scheduled list of geological heritage sites [Appendix X]."

Or

"to protect from inappropriate development the following list of County Geological Sites"

The Irish Geological Heritage Programme is identifying and selecting the very best national sites for NHA designation, to represent the country's geology. It is also identifying many sites of national or local geological heritage importance, which are classed as County Geological Sites (CGS), although these will not receive the statutory protection of NHA sites. However, the IGH Programme views the Local Authorities as critical partners in protecting, through the planning system, those CGS which fall within their county limits. In many cases these are often sites of high amenity or educational value, already zoned or listed in the plan. Listing in the CDP provides protection of the sites against potentially damaging developments that normally require planning permission, such as building, quarrying, landfilling or forestry. It is also important that the democratic process of public consultation and approval by councillors of the CDP means that stakeholders in the sites and all the local community can buy into the process.

CGS have been adopted in the National Heritage Plan, and will form a major strand of geological nature conservation to complement the various ecological and cultural conservation measures. It is important to note however, that management issues for the majority of geological heritage sites may differ from ecological sites, and in some cases development may facilitate enhanced geological understanding of a site by exposing more rock sections - for example, in a quarry extension. Consultation at the earliest stages can identify any issues relevant to an individual site or proposed development.

These two geological site designations (NHA & CGS) supersede the Area of Scientific Interest (ASIs) designation of previous decades, although geological sites have only recently been subject to re-assessment. County Geological Sites are the optimal way of addressing the responsibility of each authority under the Planning and Development Act 2000 to protect sites of geological interest.

It would also be necessary to include a policy objective to protect geological NHAs as they become designated and notified to the Local Authority, during the lifetime of the Plan.

The Schedule list of sites should include either a grid reference, a map reference cross linked to a CDP map or other location information. It should also include some indication of what kind of geological interest or geomorphological feature is present. Where no map indication of size of site is included then some indication of area or length of section could also be given, as geological sites vary considerably in size.

GSI would very much like Local Authority planning departments to put a planning condition on all major developments that GSI should be notified in advance of any significant ground excavations.

If any geologist is assigned to record, log, sample, collect or otherwise study the new rock or subsoil exposure the developer should facilitate them. In areas where natural exposures are few, or deeply weathered, this measure would permit ongoing improvement of geological knowledge of the subsurface. 'Significant' would include quarries, road cuttings, tunnels, major drainage works, foundations for industrial or large buildings and complexes.

A new GSI Bill has been formulated, which, when enacted, will place a requirement on anyone excavating within prescribed limits to keep records and notify the GSI, so it would be beneficial for all to commence this practice at the earliest opportunity. In addition, copies of geological information generated by certain types of actions will be required to be lodged with GSI.

GSI has now been designated a 'Statutory Consultee' by the DOEHLG, to be consulted where the application relates to minerals extraction, quarry developments/extensions and developments involving excavations greater than 50,000 m³ in volume or 1 hectare in area.

General points

Your Local Authority is already probably engaged with the GSI in areas such as Groundwater Protections Schemes or aggregate potential, but if not, then it is failing to make use of a major resource of expertise in vital service areas. You should promote contact to consider various groundwater protection and source protection schemes. The GSI is also now undertaking Minerals Potential Mapping for Local Authorities to provide a sensible basis for planning decisions on developments, focusing on the potential mineral resources (especially aggregates) of the county. GSI data will also be applied to flood risk assessment studies.

HERITAGE PLANS

The GSI may be able to provide some input directly from the Irish Geological Heritage Programme and from other Programme areas, but it is severely constrained by resource limitations. Therefore, as in the case of Groundwater Protection Schemes or Minerals Potential Mapping projects already being undertaken by GSI in collaboration with various counties, it is suggested that Local Authority funding, in full or in part, could facilitate employment of a contract geologist to complete a geological heritage inventory and management plans for sites of importance, and/or promotional material for raising awareness of the geological heritage within the Local Authority area. In some cases this could be a small investment over a relatively short period to achieve significant progress. Funding could provide for a priority survey of the county's geological heritage, which might require only a matter of weeks, depending on size and geological complexity of the county. A pilot project of this type commenced with County Sligo during the summer of 2003, and of the four ensuing Reports, the County Clare Report was used as a supporting document for the UNESCO Geoparks application.

An excellent approach is to ensure that the Local Authority Heritage Forum includes a geologist or, at the very least, someone with relevant knowledge and experience of earth science. A locally based geologist, perhaps a retired professional with time to devote to the Forum, would be an ideal solution. The IGH Programme may be able to advise on individual people who may be contacted.

You may also have sites of geological interest that are so special in a county, national or international scale that you wish to develop key actions specific to them that help reach one of the Heritage Plan objectives. An example is the Valentia Island Tetrapod Trackway site in County Kerry, that has certainly required special attention in terms of road infrastructure, visitor facilities, access and interpretation, even though most of this is continuing to be addressed through DOEHLG and the GSI.

Whilst each county has its own geology, and this varies considerably across the country, there are some generic issues that we suggest a Heritage Plan should consider and address:

- publish an explanatory booklet about the geology of the county, with publicly accessible highlights as the focus
- identify and promote the geological interest of some key sites in the county where public access and amenity are already provided for. This could include simple explanatory leaflets or signboards
- consider a geological trail at appropriate sites

- if there is a County Museum, plan to provide or improve the geological content of displays, and for representative collections to be more comprehensive
- ensure that any supported publications on other aspects of heritage or areas within the county include some reference to the geological foundation if appropriate e.g. walking guides
- compile a comprehensive inventory of scientific papers relating to the geology and geomorphology of the county
- focus on any unique cultural geological issues in your county (and this is where a funded priority survey would also help) - things that are distinctive to your county because of the geological foundation. Examples might be distinctive landforms of the county, the Carlow 'fence', vernacular architectural styles, field wall styles, mining or quarrying history etc
- you could make use of developing outreach efforts amongst geologists to support your own programme of activities or educational efforts. For example, you could try to ensure that a geological guided walk, lecture or display or other activity is included in Heritage Week, visit also the www.heritagecouncil.ie website, Science Week or Geology Week events in the county
- you could promote the INTO/Heritage Council Scheme for Heritage Experts in Schools and promote geological outreach in general through the Irish Geodiversity Forum or ES2K [<http://www.habitas.org.uk/es2k/>]
- don't forget that many seascapes are also geological sites of importance and if you can link the two elements of heritage effectively it enhances the value of both
- GSI can be a partner in an action such as that in the Sligo Heritage Plan: "Provide advice on best heritage practice regarding quarry rehabilitation".
- you could endeavour to engage with the Extractive industry in your county to provide funding for small projects for interpretation, access or education about the geological foundation to all our lives
- in any measures to address issues relating to architectural heritage, heritage gardens and parks and archaeological monuments don't forget that they often have a cultural geological component in siting, design, materials or other ways, which may offer a more integrated way of looking at the heritage
- whilst there has been some negative reaction and bad press amongst farmers and landowners to SAC and NHA designation, the Heritage Plan offers an opportunity to raise awareness of the societal value of such nature conservation measures. It would be a good idea to have an action such as "to support National Parks and Wildlife and the GSI in the consultation and publication of management plans for geological NHAs". This could of course be a wider action involving more organisations and designations but would be beneficial.

Geoparks/ Ecomuseums

Ireland now has two UNESCO endorsed European Geoparks (<http://www.europeangeoparks.org/>): Marble Arch Global Geopark, Co. Fermanagh and Co. Cavan (<http://www.marblearchcaves.net/>) and The Copper Coast Geopark, Co. Waterford (www.coppercoastgeopark.com). These are community driven, EU and Local Authority funded initiatives to both conserve and use the geological resources of a discrete area to develop sustainable tourism and community life. Whilst the European Geoparks Network is not likely to result in a large number of new Geoparks, in a few selected areas, they could be viable. If your county includes such areas, priority should be given to supporting nascent Geoparks.

Heritage Week Events

Along with many other organisations, geological groups have encountered severe problems with public liability insurance in trying to offer Heritage Week events, particularly for outdoor field

meetings. This has meant that many are now unable to offer such events. The Local Authority may be able to offer some assistance in this respect or advice in order to maintain a comprehensive programme of events.

Mining Heritage

Another area of potential importance in some counties is that of mining heritage. The Mining Heritage Trust of Ireland (MHTI) has supported or led [such as at Allihies Man Engine House below] many community ventures to conserve, protect, interpret and promote local mining heritage throughout the country. Identification of key mining heritage assets in the county should be a priority action in the Heritage Plan. The MHTI would be a key partner in such efforts, especially if funding could be made available to undertake inventory and survey work. MHTI can be contacted through www.mhti.com or through the IGH Programme of the GSI. Supporting locally driven efforts to offer sustainable tourism or alternative farm enterprises related to mine heritage could be an easily deliverable action.

If the county has very little mining heritage, whatever there is should be encompassed within a general inventory of industrial heritage.

Websites

If your heritage forum develops and builds an active web presence, don't forget to include geological heritage on it. GSI is a potential partner in supplying material, and in offering links and technical geological advice.

Exhibitions

The IGH Programme has a panel based exhibition available for temporary loan and display in any suitable museum, library or other venue. You can choose the whole exhibition or a selection, and it would be advisable to have some additional panels specific to your county and local interest. These could probably be generated without difficulty, and then suitable objects and other items could be produced subject to local situations.

Panels can be viewed in miniature on

<http://www.gsi.ie/Programmes/Heritage+and+Planning/Public+Outreach+and+Education/>.

Other exhibitions such as "*Mining through the Millennia*", are also available.

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