

Guidance on Identifying Natural Heritage Features and Ecological Networks for Local Development Plans

1. Introduction

This guidance document is intended to:

- highlight the value of identifying natural heritage features and ecological networks in Local Development Plans (LDPs);
- outline the policy and legislative context;
- encourage a consistent, coherent and effective approach across Northern Ireland and;
- highlight current baseline data sources.

The identification of natural heritage features and ecological networks will form part of the baseline environmental information for the LDP and will inform where particular LDP policies are likely to apply.

Adopting the methodology outlined in this guidance document would help to ensure that LDPs take a consistent approach to the identification of natural heritage features and ecological networks. It would also ensure that where these features and networks occur across council boundaries, they are dealt with coherently and effectively.

Box 1 - Definitions

Natural Heritage Features

includes biodiversity, ecosystems and earth science.

Ecological Networks

as intended to maintain environmental processes and to help conserve and enhance biodiversity. They comprise core areas, movement routes (linear corridors, stepping stones or permeable areas allowing travel between core areas), and buffer zones.

This would enable an integrated approach throughout Northern Ireland and facilitate the implementation of higher level planning aims and objectives in the Strategic Planning Policy statement (SPPS) and the Regional Development Strategy (RDS).

2. The value of identifying natural heritage features and ecological networks in Local Development Plans (LDPs)

The designated site network provides a system of statutory protection for nature conservation and earth science features in Northern Ireland. It includes international sites (Special Protection Areas, Special Areas of Conservation and Ramsar sites), national sites (Areas of Special Scientific Interest, Marine Conservation Zones, Nature Reserves or National Nature Reserves) and local sites (Local Nature Reserves and Wildlife Refuges).

However, the designated site network only covers some of the best examples of these features in Northern Ireland. Outside of this designated network there are large areas of land which support biodiversity, ecosystems and earth science interests. Identifying and protecting these assets through the LDP process will help:

- contribute to halting the loss of biodiversity and geodiversity in Northern Ireland by identifying and protecting sites of substantive value for local habitats, species and earth science.
- provide crucial ecosystem services such as pollination, water regulation, erosion control and air quality regulation.
- give protection to a network of sites for wildlife movement and for local communities and organisations to enjoy, conserve and study wildlife.
- generate information on local sites that could be used to inform the targeting of local biodiversity and earth science action.
- contribute towards the implementation of international, national and regional legislation, environmental strategies and policies.
- conserve the diversity of habitats and earth science interests which enhance and contribute to the local landscape character and identity of Northern Ireland.

Box 2 – Lawton Review

The Lawton review of wildlife sites and ecological networks in England considered a wide range of evidence to see what should be done to try to halt the further loss of biodiversity. The main message from this review was that biodiversity needed **more sites, bigger, better and joined** if we want to halt biodiversity loss.

3. Policy and Legislative Context

3.1 Regional Development Strategy (RDS)

The identification of natural heritage features and ecological networks supports the RDS as follows:

RG 11: Conserve, protect and, where possible, enhance our built heritage and our natural environment. In particular to:

- Sustain and enhance biodiversity
- Identify, establish, protect and manage ecological networks
- Protect and manage important geological and geomorphological features
- Protect enhance and manage the coast
- Protect, enhance and restore the quality of inland water bodies

It also supports RDS Spatial Framework Guidance as follows:

SFG5: Protect and enhance the quality of the setting of the BMUA and its environmental assets

SFG9: Protect and enhance the quality of the setting of Londonderry City and the North West and its environmental assets

3.2 Strategic Planning Policy Statement (SPPS)

The SPPS provides Regional Strategic Policy for International, National and Local designated sites alongside protected species and other habitats, species and features of natural heritage importance.

In relation to the latter, the SPPS states that planning permission should only be granted for a development proposal which is not likely to result in the unacceptable adverse impact on, or damage to known:

- priority habitats;
- priority species;
- active peatland;
- ancient and long-established woodland;
- features of earth science conservation importance;
- features of the landscape which are of major importance for wild flora and fauna;
- rare or threatened native species;
- wetlands (includes river corridors); or
- other natural heritage features worthy of protection, including trees and woodland.

As part of the implementation of the regional strategic policy, 6.195 in the SPPS states that:

- In plan-making councils should take full account of the implications of proposed land use zonings, locations for development and settlement limits on natural heritage features and landscape character within or adjoining the plan area.
- Natural heritage features and designated sites should be identified as part of the plan-making process.
- Where appropriate, policies should be brought forward for their protection and / or enhancement.
- LDPs should identify and promote the design of ecological networks throughout the plan area to help reduce the fragmentation and isolation of natural habitats through a strategic approach.

3.3 Wildlife and Natural Environment Act 2011

The Wildlife and Natural Environment Act 2011 includes a duty to further biodiversity within public authority decision making and functions as follows:

'It is the duty of every public body in exercising any functions to further the conservation of biodiversity so far as is consistent with the proper exercise of those functions.'

4. Developing a consistent approach to identifying natural heritage features and ecological networks in LDPs

4.1 Designated Sites

The boundaries of natural heritage designated sites held by the Department are available as digital datasets for download from the DAERA website. This data can be downloaded and used by Geographical Information Systems (GIS). <https://www.daera-ni.gov.uk/articles/digital-datasets>

4.2 Other habitats, species and features of natural heritage importance

As highlighted in Section 3 above, from a policy and legislative context it is important that natural heritage features and ecological networks are identified in LDPs. Prior to 2015, the then Department of Environment identified and designated Sites of Local Nature Conservation Importance (SLNCIs) through development plans. Following reform of the planning system, it is now up to each council to decide whether natural heritage features and ecological networks are identified for information purposes in the LDP, or are designated through the LDP process eg as SLNCIs or Local Landscape Policy Areas.

SLNCIs, prior to 2015 were identified using a set of criteria which are detailed in Appendices 1 and 2. Broadly, they were identified under one or a combination of the following themes:

- Habitat themes
- Species themes
- Functional themes (ecological networks, wildlife corridors and stepping stones)
- Community themes (amenity sites, conservation sites and historical & cultural sites with natural features)
- Earth Science themes

A similar standardised approach could be used to identify natural heritage features and ecological networks in new LDPs. As natural heritage features and ecological networks can occur across LDP boundaries, it is important to ensure a consistent approach is taken throughout Northern Ireland.

Suggested stages required to identify and/or designate natural heritage features and ecological networks include:

Identifying natural heritage features and ecological networks in the LDP

- If possible, liaise with adjoining LDP areas to agree a standardised approach including methodologies such as classification methods, mapping scales and field data collection methods etc.

- Carry out a desk study – collate all existing information, including the data sources identified in Section 5 below. This information, viewed using Geographic Information Systems (GIS) in combination with aerial photography, can aid the identification of potential sites and significant changes to the network that have occurred over time.
- Produce a final map identifying designated sites and known other features likely to contain natural heritage importance to represent ecological networks in the LDP area.

Designating natural heritage features and ecological networks in the LDP

In addition to the actions above:

- Carry out field surveys to verify and refine the results of the desk study, classify habitat type and map extent.

There are a number of different classification systems for habitats; including Phase 1 Habitat Survey, National Vegetation Classification (NVC) and the European Nature Information System (EUNIS). The use of these different habitat classification systems can make it challenging to share and integrate data from different surveys. However, recently the UK Habitat Classification survey methodology has been developed which integrates all major habitat classifications used in the UK and Europe. A user manual, habitat definitions and other supporting documents can be downloaded from <http://ecountability.co.uk/ukhabworkinggroup-ukhab/>. The UK Habitat Classification also includes a method for mapping and identifying green infrastructure, making it particularly useful for LDPs.

5. Current Data Sources

The boundaries of natural heritage designated sites held by the Department are available as digital datasets for download from the DAERA website <https://www.daera-ni.gov.uk/articles/digital-datasets>.

The NIEA Natural Environment Map Viewer <https://www.daera-ni.gov.uk/services/natural-environment-map-viewer>, will highlight a significant proportion of the priority habitat and local wildlife site resource that has been identified from data collected over the last 30 years. As it is neither up to date nor comprehensive, it can only be used as a starting point in identifying natural heritage features and networks.

The Woodland Trust undertook an inventory of Ancient and Long Established Woodland in NI in 2007 <http://www.backonthemap.org.uk/>. They used historical evidence to highlight locations of ancient and long established woodland still existing and those which had been lost.

There may be SLNCIs which were mapped in the previous local area plan. The digital datasets for these should reside with the originating council areas. DAERA may be able to provide councils with the original field survey information to act as a baseline. Please

send any requests for information to the Biodiversity and Conservation Science inbox: BCSGeneral@daera-ni.gov.uk. It should be noted that SLNCIs should be reviewed to establish whether they still support natural heritage features and/or ecological networks. SLNCI surveys represent a snapshot in time and they may have changed due to ecological processes or human influences. See Appendices 1 and 2 on how SLNCIs were identified prior to 2015 and Section 4 on developing a consistent approach to identifying natural heritage features and ecological networks.

The Centre for Environmental Data and Recording (CEDaR) can provide the locations of species that have been recorded within a council area on request. This could then be used to highlight potentially important areas for priority species, species assemblages and sites supporting important populations of species eg birds. Contact CEDaR for further information <http://www.nmni.com/cedar>

Local Biodiversity Officers may have inventory of priority habitat within their local area or be aware of the most important sites for biodiversity.

Natural Heritage features can be can be important for nature conservation, or earth science, or a combination of both. For earth science information, see the Earth Science Conservation Review which was a NI wide survey of important earth science sites <http://www.habitas.org.uk/escr/>.

Local Biodiversity and Earth Science interest groups and NGOs could be consulted to highlight any sites they are aware of.

6. Further information

Department for Infrastructure Strategic Planning Policy Statement for Northern Ireland (SPPS) Sept 2015 <https://www.planningni.gov.uk/index/policy/spps.htm>

Department for Regional Development (2010) Regional Development Strategy 2035 <https://www.infrastructure-ni.gov.uk/publications/regional-development-strategy-2035>

Lawton J. (2010) Making Space for Nature. <https://www.gov.uk/government/news/making-space-for-nature-a-review-of-englands-wildlife-sites-published-today>

National Museums Northern Ireland, Northern Ireland Priority species webpages <http://habitas.org.uk/priority/>

Department of Agriculture, Environment and Rural Affairs NI Priority Habitat Guides <https://www.daera-ni.gov.uk/articles/northern-ireland-priority-habitat-guides>

Biodiversity Strategy for Northern Ireland to 2020 <https://www.daera-ni.gov.uk/sites/default/files/publications/doe/natural-policy-biodiversity-strategy-to-2020-2015.pdf>

State of the Environment Report <https://www.daera-ni.gov.uk/publications/state-environment-report-2013>

APPENDIX 1 - How were Biological SLNCIs identified in Local Development Plans prior to 2015?

In general biological SLNCIs were designated due to their habitat, species, functional or community importance. In all cases sites were selected because of their substantive nature conservation value. The sites were primarily identified using the criteria utilised to identify national nature conservation sites (Radcliff 1977), with adjustments to reflect value at a local level.

Habitats and Species Themes

Selection of sites were primarily based on the priorities contained in the Northern Ireland Biodiversity Strategy and the network of statutory nature conservation sites. The habitat themes (HAB) were divided into 14 broad types. These are broader than priority habitats.

Likewise the species themes (SPP) were divided into four broad types. These relate specifically to priority species, but also include categories for other species, species assemblages or populations which were of biodiversity significance. The presence of priority habitats and species within each SLNCI was noted in site descriptions where possible.

During site selection, both local and regional rationale were considered.

The regional considerations were used to identify criteria for the selection of sites throughout Northern Ireland. These reflect the features used to select Areas of Special Scientific Interest (ASSIs) i.e. habitat, extent/population size, diversity, naturalness, rarity and typicalness.

Local consideration was given to ensure the selection of sites was modified to take into account geographical distribution and local requirements.

Functional Themes

In addition to the presence of habitats and species, consideration was given to the value of a site in maintaining biodiversity at a local level by virtue of habitat structure, geographical position and value to wider ecological networks.

Wildlife Corridors are important sites for the movement and dispersal of wildlife. Wildlife corridors included linear features with a semi-natural structure such as rivers and banks, field boundary systems, coastal habitats, broadleaf or mixed broadleaf and conifer woodland, canals and dismantled railways.

Wildlife stepping stones are discrete sites which support local biodiversity and can act a refuge for wildlife. They may include habitats such as ponds, woods, lakes, peat bogs, coastal habitats, broadleaf woodland, scrub, fens and disused quarries.

The functioning of designated sites of international and national nature conservation importance is often enhanced by adjacent habitats of lower intrinsic interest.

Complementary designation sites are sites that complement or enhance habitats associated with adjacent designated sites of international and national nature conservation interest or assist in the reversal of fragmentation.

Community Themes

In addition to habitats, species and functional themes, consideration was also given to the value of a site to the local community. Local communities can use wildlife sites to enjoy, conserve and study biodiversity. This includes utilising sites which are actively managed to conserve or enhance local biodiversity. Communities can also value natural elements that form part of the history and culture of the local area.

Wildlife amenity sites are sites with wildlife interest that are used by the public for amenity purposes (e.g. environmental education, wildlife watching or passive recreation).

Conservation sites are sites that are actively managed by organisations or individuals for habitat creation, regeneration or nature conservation.

Historical and cultural elements are sites with natural features that have shaped local landscapes and influenced the culture and history of the local area.

APPENDIX 2 - How were Earth Science SLNCIs identified in Local Development Plans prior to 2015?

The purpose for designating Earth Science SLNCIs was to support the development of a network of sites which collectively demonstrates the geological history of Northern Ireland, including past and present geomorphological processes.

In general, the earth science interest within SLNCIs was divided into three different categories: exposure sites, integrity sites and process sites; active and fossil. These site categories cut across the range of geological and geomorphological themes relevant to Northern Ireland. For practical purposes it is simplest to consider the SLNCI series under the three categories detailed below.

Exposure Sites

These sites were selected as they provide access to notable rocks and other geological strata that are otherwise buried and inaccessible. Sites are typically quarries, coastal and river localities or mountain crags. Key considerations for their conservation are retention of the exposure and the ability to access the site by foot.

Integrity Sites

These sites were selected as they contain rare or unusual geological features, of limited occurrence. They can include notable fossil or mineral sites, and unusual rock types. Sites are typically quarries although some coastal and river localities or mountain crags are also significant. These features tend to be of very limited extent and so the key

considerations for their conservation are retention of the entire feature of interest and the ability to access the site by foot.

Process Sites; Active and Fossil

These sites are important for their landforms and other features related to geological processes which are still operating (Active), or are historical (Fossil). Active sites include coastal, river and cave systems. Fossil sites include glacial landforms and features related to former higher sea-levels. These features can be of considerable extent and often are very important determinants of landscape appearance and quality. Some sites may have high potential economic value as aggregate deposits. Key considerations for the conservation of these sites are retention of typical landforms and ensuring that active processes, where relevant, continue uninterrupted.