LOWLAND DERBYSHIRE

LOCAL BIODIVERSITY ACTION PLAN

SEMI-NATURAL GRASSLANDS

HABITAT ACTION PLAN
2005 – 2010

Prepared by the Lowland Derbyshire Biodiversity Partnership

Finalised January 2005

TREND IN LOWLAND DERBYSHIRE: There has been a steady decline since the 1950s accelerating in the 1970 and 1980s. The rate of decline has lessened in the 1990s, but continues to affect an increasingly small and fragmented resource.

ESTIMATED EXTENT IN LOWLAND DERBYSHIRE:
In 2003 the area of semi-natural grasslands in Lowland Derbyshire was estimated at 1746 ha. Within a survey area of 152318ha; thus this habitat now covers only 1.14% of the land area. (Source: DWT 2003 – see below).

NATIONAL BAP HABITATS:

▪ **Neutral grassland:**	Lowland Meadows	(Priority),
▪ **Calcareous grassland:**	Lowland Calcareous grassland	(Priority)
▪ **Lowland dry acid grassland**	Lowland acid grassland	(Priority)

ASSOCIATED NATIONAL BAP PRIORITY SPECIES:
Species which occur in Derbyshire: Pennyroyal, Red Hemp-nettle, Great Crested Newt, Grey Partridge, Skylark, Tree Sparrow, Brown Hare, Pipistrelle bat, Argent and Sable Moth and Pink Waxcap.

Associated Lowland Derbyshire BAP Audits: '*Semi-natural grassland audit for Derbyshire outside the Peak District national Park based on surveys undertaken between 1997 and 2003'*. Derbyshire Wildlife Trust November 2003.

Species for which semi-natural grassland is a key habitat: See Appendix 1 in the document 'Grassland Habitats in Lowland Derbyshire'

A VISION FOR THE FUTURE OF SEMI-NATURAL GRASSLANDS IN LOWLAND DERBYSHIRE

In the future the declines and losses in semi-natural grasslands will have been reversed. In areas where there are still relatively high concentrations of semi-natural grassland sites will be linked to other semi-natural habitats such as ancient woodlands, wetlands, riparian corridors and other grassland sites to form larger more extensive areas of land with increased value for wildlife, recreation and sustainable farming. Elsewhere in the lowlands key sites will be brought back into sympathetic management and new grasslands will be restored, created or allowed to develop naturally in association with development, regeneration and landscape enhancements. Abandonment of semi-natural grassland sites will be addressed through initiatives like co-operative grazing projects and machinery rings. Restoration and creation will use local meadows and pastures as seed sources. Flower rich grasslands will once again be valued as an important aspect of our natural heritage and recognised for the contribution they make to human experience and enjoyment.

1. INTRODUCTION

This Habitat Action Plan covers the following habitats:

- Acid grassland
- Neutral grassland
- Calcareous grassland

Background information on semi-natural grassland and its distribution in Lowland Derbyshire can be found in the document 'Grassland habitats in Lowland Derbyshire'.

2. FACTORS WHICH HAVE AN ADVERSE IMPACT ON SEMI-NATURAL GRASSLANDS

✔ ✔ A significant impact ✔ an impact

		Historical	Current
	Land management		
	Agricultural improvement including ploughing, conversion to arable, re-seeding as permanent or temporary grasslands.	✔ ✔	✔
	Applications of organic and inorganic fertilisers, herbicides, pesticides and lime		✔
	Inappropriate grazing regimes, including type of stock, undergrazing resulting in invasion by coarse grassland and scrub, over grazing and supplementary feeding (causing localised enrichment and poaching.	✔	✔
	Applications of paper pulp		✔
	Bracken encroachement	✔	✔
	Horse grazing may have adverse impacts		✔
	Demise of livestock farming		✔
	Pollution		
	Use of Ivermectin and its associated effects on invertebrates	✔	✔
	Atmospheric pollution, particularly Nitrate deposition	✔	✔
	Climate change		✔
	Disposal of sheep dip	✔	
	Others		
	Tree planting schemes and pond creation	✔	✔
	Development	✔	✔
	Limestone quarrying and mineral extraction and restoration	✔	✔
	Recreation – footpaths, access etc., motorbikes	✔	✔
	Tipping and infilling of hollows		✔
	Fragmentation and risk of species extinction		✔
	Inappropriate targeting and levels of grant incentives		✔

3. CURRENT ACTION

3.1 Designated Sites

- **SSSI designation**: Very little semi-natural grassland fall within SSSIs

Table 1 ***SSSI designations which include lowland semi-natural grasslands***

SSSI	Calcareous grassland	Magnesian limestone grassland	Neutral grassland	Lowland dry Acid grassland
Moss Valley Meadows			15	
Ogston Reservoir			11	
Breadsall Railway Cutting			1.5	

Hollinhill & Markland Grips		1.4		
Hilton Gravel Pits			0.007	
Teversal-Pleasley Railway (not Derbyshire SSSI, led by Grantham)				
Mercaston Marsh and Muggington Bottoms				2.5
Moss Valley			0.5	0.0003!
Ticknall Quarries	0.004			

- **LNR designations:** Several Local Nature Reserves declared by local authorities include semi-natural grassland.

- **Sites of Importance for Nature Conservation:** As shown in table 2, only 23% of the semi-natural grassland resource are designated as County Wildlife Sites. These have ecological importance at the county level and are given some protection by local authorities through development plan policies. However, this does not protect sites from agricultural change. Many additional sites will be of sufficient interest to meet the guidelines for selection as a Wildlife Site.

- **Sites within management agreements:** As shown in Table 2, only 11.8% of the semi-natural grassland resource is within a Countryside Stewardship agreement.

Table 2: Extent of semi-natural grasslands within designations or management schemes.

Natural Areas in Lowland Derbyshire	Area (ha) managed under Countryside Stewardship (2002)	No of sites	% of grassland resource managed by agreement	Area (ha) of grassland resource designated as County Wildlife Sites	No of County Wildlife Sites	% of grassland resource designated as County Wildlife Sites	Area (ha) designated as SSSI	% of grassland resource designated as SSSIs
Totals	206.09	72	11.80	402.74	125	23	31.911	1.8

- Derbyshire Wildlife Trust nature reserves with semi-natural grasslands include Hilton Gravel Pits SSSI, Erewash Meadows, Oakerthorpe and Risley Glebe. Some local authorities and other public bodies eg water authorities, own and manage other semi-natural grasslands which are not designated as LNRs.

- Local authorities may enter into management agreements with owners or occupiers of sites in order to conserve the habitat in association with planning consent, but none exist within the county although adjoining local authorities have done so.

3.2 New Initiatives

The Creswell Magnesian Limestone Strategy has raised issues relating to all habitat types on the Southern Magnesian Limestone; further development and implementation of the strategy is currently in progress towards achieving its objectives for wildlife.

The DWT Value in Meadows project is still seeking funding; the aims are to provide further information and advice for semi-natural grassland owners and managers, to undertake further detailed surveys to identify the best sites and to identify and develop income opportunities associated with the production of seed banks, green hay, hay for harvest, herb-rich fodder etc.

The Derbyshire Conservation Machinery Ring has been established for three years. It includes partners from the public and private sectors. It enables the sharing of specialist machinery by owners and managers, enabling management of steeper slopes and small areas, it provides training in uses of specialist equipment and demonstrations of new machinery.

Other projects at an earlier stage in their development include:

- the OnTrent project raising awareness of land owners in the Trent valley to the value of semi-natural grasslands;
- a Biodiversity Audit and strategy for the Moss Valley, which aims to provide buffer zones and linkages between a concentration of grasslands of exceptional value;
- and new national agri-environment schemes.
- The Lowland Derbyshire Habitat Creation Guide[1] provides advice on appropriate species mixes and management techniques for the creation of species rich grassland in each Natural Area.
- The Landscape Character of Derbyshire[2] identifies the grassland habitats that occur naturally in specific Landscape Character types and the potential for protection and expansion of these habitats

3.3 Land management of LBAP partners

- English Nature under the Wildlife Enhancement and Reserves Enhancement Schemes is encouraging SSSI owners and managers to take their grasslands into favourable management.
- For over ten years the Government Countryside Stewardship Scheme has included most semi-natural grassland in Lowland Derbyshire as a target but stocking rates in the Less Favoured Area have generally been considered too restrictive. This scheme will be replaced by a new agri-environment two tier scheme in 2005/6, encompassing Entry Level and Higher Level schemes.

3.4 Research and Survey

Two potential projects have been identified which it would be particularly beneficial to pursue:

- Plotting grasslands on a GIS base using contours to identify areas and altitudes;
- Researching with farmers their historical management of land.

[1] Lowland Derbyshire Habitat Creation Guide 2002 Derbyshire Wildlife Trust
[2] The Landscape Character of Derbyshire 2003 Derbyshire County Council

4. ACTION PLAN OBJECTIVES AND TARGETS

4.1 National targets[3]

- Arrest depletion
- Within SSSI initiate habitat rehabilitation in unfavourable condition by 2005 to achieve favourable status by 2010.
- For other stands secure favourable condition on over 30% of resource by 2005 and on 100% by 2015.
- Re-establish 500ha of lowland hay meadow, 50ha of upland hay meadow, 500ha of lowland acid grassland and 1000 ha of lowland calcareous grassland at selected sites by 2010.

4.2 Regional Targets

The East Midlands Biodiversity Forum recommend [4] the following targets by 2010:

- Lowland calcareous grassland: restore 1200ha, create 210ha;
- Lowland dry acid grassland: create 250ha
- Lowland hay meadow: restore 200ha, create 100ha.

[3] A precis of targets set out in the UK Biodiversity Group Tranche 2 Action Plans Volume II Terrestrial and Freshwater habitats.

[4] Appendix 3 Regional Planning Guidance (April 2003)

4.3 National Forest

The National Forest LBAP has a number of related grassland HAPs which have the following targets:

- Ensure all acid and neutral grassland sites of nature conservation importance are in favourable condition by 2010.
- Increase the extent of lowland acid grassland by a further 20ha by 2010.
- Increase the extent of species-rich neutral grassland by another 200ha by 2010.
- Ensure Local Authorities designate Roadside Verge Nature Reserves where the quality of the habitat or presence of key species justifies it. Aim to designate 2 per annum.

4.4 Lowland Derbyshire

4.4 Lowland Derbyshire

Objective 1

Maintain the current extent and distribution of priority semi-natural grassland habitats (i.e. SSSIs, Wildlife Sites and candidate Wildlife Sites) and seek to secure favourable condition on 100% of the resource.

Objective 2

Link existing semi-natural grassland sites by restoring, enhancing or creating grasslands. In many areas semi-improved species poor grasslands can be targeted to make these links and therefore reverse the trend of loss and address the problem of habitat fragmentation and isolation.

Objective 3

Create new areas of semi-natural grasslands, giving priority to areas where the resource is very rare.

TARGETS

Neutral grassland

Conservation of existing sites is the priority, followed by restoration of semi-improved sites in key areas to provide linkages and buffer zones. In addition areas will be created including through arable reversion:

- Phase II survey of all semi-natural sites where this has not been carried out by end 2010 (Estimated at 200-300 sites)
- Evaluation of these sites for designation as County Wildlife Sites by end 2010.
- Review management of these on a rolling programme. Review all sites by 2010.
- Secure sympathetic conservation agreement on 50% of sites by 2008 and 75% by 2010.
- Review and revise targets if necessary in 2007/2008.
- Secure sympathetic management on 20 *(*Wildlife Sites and other known sites*)* species-rich road verges by 2010 and work with Highways Agency to enhance management of other verges.
- Recreate 50 ha of neutral grassland by 2010
- Restore 200 ha of neutral grassland by 2010

Calcareous grasslands

The resource is so small that both conservation of all calcareous grassland sites and restoration of all semi-improved calcareous grassland are a priority by 2010. Targets therefore refer to all these sites:

- Phase II survey of all sites where this has not been carried out by end 2006.
- Review the management of all sites by end of 2006. Secure sympathetic conservation agreement on 50% of sites by 2007.
- Review and set a new target for 2007 – 2010 and change accordingly.
- Secure sympathetic management on 2 Wildlife Sites and other known species-rich road verges by 2010 and work with Highways Agency to enhance management of other verges.
- Recreate 25 ha of calcareous grassland on the Magnesian Limestone or limestone outcrops elsewhere.
- Restore 50 ha of calcareous grassland by 2010

Dry Acid grasslands

Conservation of existing sites is the priority, followed by restoration of semi-improved sites in key areas to provide linkages and buffer zones:

- Phase II survey of all semi-natural sites where this has not been carried out by end 2010 (Estimated at 180 – 220 sites.).
- Evaluation of these sites for designation as County Wildlife Sites by end 2010.
- Review the management of these sites by end of 2010. Secure sympathetic conservation agreement on 50% of sites by 2010.
- Review and set a new target for 2010 onwards.
- Secure sympathetic management on 2 Wildlife Sites and other known species-rich road verges by 2010 and work with Highways Agency to enhance management of other verges.
- Recreate 50 ha of acid grassland by 2010.
- Restore 100 ha of acid grassland by 2010

4.5 Main factors likely to affect achievement of targets

- Implementation of the RDR and reform of the CAP. Effectiveness of agri-environmental and conservation scheme prescriptions eg Influence of LFA and HLS stocking rates.
- Perceived low economic value semi-natural grasslands. Poor economic return from hay crops
- Decline in perceived agricultural value of these habitats.
- High land prices forcing intensive management following purchase of land.
- Limited rewards from agri-environment and conservation schemes and lack of incentives for favourable management.
- Availability of funding for targeting, survey, negotiation and agreement.

- Lack of safeguard or effective conservation mechanisms outside SSSIs. Lack of systematic procedure or mechanism for conservation bodies and local authorities to have an opportunity to safeguard land.
- Loss of sites to development, insufficient protection and recognition through planning process.
- Urban fringe pressure and land ownership changes resulting in pony grazing
- Implementation of Environmental Impact Assessment (Uncultivated Land and Semi-natural Areas) (England) Regulations 2001.
- Lack of available local provenance seed sources for recreation schemes.
- Lack of grazing stock to graze sites and the demise of livestock farming.
- Lack of machinery to mow sites, remove scrub etc.

Monitoring Grassland Site Condition

It is essential that progress towards achieving the targets set out here is accurately monitored using a consistent and rigorous approach. Initially an assessment has been made based on examination of detailed ecological surveys for over 200 grassland sites that are listed on the Grassland Inventory. The condition of these sites is presented within Table 1. The condition is determined by considering the following; current management practices, known loss of vascular plant species from a site, presence of undesirable weed species and scrub invasion.

Condition	**Number of sites**	**Proportion (%) of those sites assessed.**
Favourable	67	31
Unfavourable – recovering	18	8.3
Unfavourable - maintained	65	30
Unfavourable - declining	66	30.5

Source: DWT, 2005 a provisional grassland condition assessment.

If these trends are extrapolated to the whole grassland resource then over 60% of the grasslands are likely to be unfavourable with almost one third in decline. However, almost 40% are either favourable or moving towards becoming favourable.

Future monitoring

A monitoring system needs to be established that records the condition of grassland sites based on up to date ecological surveys (Phase II). Individual sites that are visited during the course of the action plan will need to be re-visited after five years to determine whether their condition has improved, been maintained or declined.

5. ACTIONS

Key to the achievement of the proposed targets is the securing of appropriate financial incentives to bring semi-natural grassland into good condition.

LDGHAG= Lowland Derbyshire Grassland Habitat Action Group (all of the organisations below), EN = English Nature, DEFRA = Dept. of Food and Rural affairs, DWT = Derbyshire Wildlife Trust, NT = National Trust, ST= Severn Trent , LA = Local authorities, FWAG = Farming and Wildlife Advisory Group, GW = Groundwork, EA = Environment Agency, FC = Forestry Commission, HA= Highways Agency

	ACTIONS	**TIMESCALE – Start date**	**LEAD AGENCY & partners**
	DATA COLLATION		
SNG 1	Collate existing information on semi-natural grasslands	Complete	**DWT**/EN
SNG 2	Resurvey sample set	2008/9	**DWT**
SNG 3	Compile a register of species rich and unimproved grasslands, including classification into types,	Complete	**DWT**
SNG 4	Update and add to information to the register on the level of importance, Wildlife Site status, natural area, condition, important species, and conservation status, and initiate a programme for regular updating.	Start 2005	**DWT**
SNG 5	Pursue data supply agreement with partners for distribution and use of this register	2005	**DWT**/FWAG/ DEFRA/others
SNG 6	Compile a register of suitable local seed sources for grassland restoration projects and commercial needs	2005	**DWT** – 'Value in Meadows'
SNG 7	Identify gaps in knowledge, identifying the areas which require further survey work.	2005	LDGHAG
	SURVEY		
SNG 8	Agree methodology for Phase II survey	2005	**EN/DWT**
SNG 9	Undertake Phase II survey of all semi-natural grassland sites awaiting first visit	2010	**DWT/EN** project
SNG 10	Carry out Phase I surveys in areas where existing information is inadequate	Complete	DWT
SNG 11	Collate information on created and restored sites	2007	LDGHAG
	EVALUATING THE IMPORTANCE AND CONDITION OF SITES		
SNG 12	Agree methodologies for evaluation of grasslands. To include definition of priorities for conservation action and identification of Wildlife Sites.	Complete	
SNG 13	Agree guidelines for the range of management needed to achieve favourable condition	2005	LDGHAG
SNG 14	Agree guidelines for the identification of key areas for targeting.	2005	**DEFRA/**DWT
	RESEARCH		
SNG 15	Develop briefs for project work to be undertaken as and when students are available	2005	LDGHAG
	MONITORING		
SNG 16	Agree monitoring methodologies	2005	**LDGHAG/DWT**
SNG 17	Ensure outcomes of agri-environment schemes are monitored, using agreed methodologies. Ensure results are collated and used to update grassland registers.	2005 ongoing	**DEFRA/**DWT

SNG 18	DWT will continue to cross-reference and track the area of land going into ELS and HLS and update the registers accordingly	Ongoing	**DWT**
SNG 19	Identify current condition of grassland sites and monitor subsequent changes in condition over five years.	Ongoing	**DWT**
	CONSERVATION ACTION AND INCENTIVES		
SNG 20	Review SSSI coverage and look at notify further sites as appropriate	2010	**EN**
SNG 21	Review desirability and opportunities for establishment of further key sites as NNRs and LNRs and establish if appropriate.	Ongoing	**LAs**/EN/DWT /GW
SNG 22	Ensure consultation responses when opportunities arise seeking targeting new schemes effectively.	Ongoing	LDGHAG
SNG 23	Review management of all sites within SSSIs. Where necessary agree revised management regimes with owners and managers, through appropriate mechanisms, such as WES, to ensure maintenance or restoration of favourable condition.	Complete	**EN**
SNG 24	Negotiate appropriate agreements with landowners and managers of all key conservation and restoration sites outside of existing agreements and SSSIs, in order to achieve maintenance or restoration of favourable condition.	Await DEFRA Higher level scheme 2005/6	**DEFRA/**DWT/ FWAG
SNG 25	Review management of sites in existing agreements outside SSSIs. Where necessary agree revised management regimes with owners/managers to ensure that favourable condition is being maintained or restored.	Ongoing	**DEFRA**
SNG 26	Review whole holding agreements, which include unprotected sites.	Ongoing	**DEFRA**
SNG 27	Review road verge management	Ongoing	**HA**/ LAs
SNG 28	Identify and consider other sources of income for owners and managers of unimproved grassland. To include possible sale of seed for meadow restoration and links to conservation products.	2005	**DWT** Value in Meadows project
SNG 29	Consider practicalities of negotiating purchase/lease of priority sites where this would be the most effective way of achieving conservation objectives and where a negotiated conservation solution has not been successful. Clarify position of each partner.	2005	LDGHAG
SNG 30	On land owned by public or conservation bodies, ensure that: • Management maintains and where possible enhances the value of hay meadows • Options for the restoration of hay meadows are considered • Opportunities for involvement of local communities in site management are taken where possible	Ongoing	**LAs/NT/ DWT/ST/FC/EN**
	REGULATION		
SNG 31	Ensure all planning applications and General Development Orders are adequately assessed in relation to their impact on sites, that loss or damage is avoided and that opportunities are taken for enhancement.	Ongoing	**LAs**/DWT
SNG 32	Consider the opportunities for creation of sites in rele planning decisions, including quarry restoration sche	Ongoing	**LAs**/DWT

SNG 33	Ensure that the impact of disposal of waste from new development is addressed in the planning process	Ongoing	**LAs**/DWT
SNG 34	Ensure appropriate consultation responses when opportunities arise re procedures for spreading of paper pulp	Ongoing	**EA**
SNG 35	Ensure EIA s undertaken for uncultivated land and semi-natural areas. Increase awareness of need for EIA where uncultivated land is proposed for 'improvement'.	Ongoing	**DEFRA**/FWAG/ DWT
SNG 36	Ensure that all woodland planting proposals consider the adverse effects of planting on sites.	Ongoing	**FC/**LAs/DWT
	AWARENESS RAISING		
SNG 37	Develop an awareness raising strategy, to include identification of key audiences, key messages, and methods of promotion/awareness raising.	2005 – 2008	LDGHAG
SNG 38	Share information on the wildlife importance and management needs of key conservation and restoration sites with the landowners/managers including feedback from surveys.		
SNG 39	Agree techniques for restoration Make guidance available on restoration techniques, habitats suitable for restoration, available seed sources, and appropriate species mixes to land managers/owners and conservation organisations/staff.		
SNG 40	Host landowners seminar or grassland conference		

6. RESOURCES

It is envisaged that many of the actions proposed will be carried out by the relevant organisations using current resources. These include:

- Continuing investment by landowners and managers managing their land sympathetically for wildlife;
- EN's programme of reviewing SSSI management and designation and its grant and management agreement schemes;
- DEFRA's agri- environment schemes;
- DWT's habitat inventories/registers and Wildlife Sites database
- FWAG and the DWT's advisory services;
- Continuing management of species-rich and unimproved grassland sites by conservation organisations and public bodies (LAs, EN, NT, DWT) and others;

Additional resources are likely to be required:

- Survey and negotiation of agreements in areas where information and conservation action is lacking.
- For implementation of restoration both in terms of the necessary machinery and the required surveys and negotiations.
- To provide adequate financial incentives for the conservation and restoration of sites.
- To aid in continual update of the GIS layers or proposed registers
- To implement effective monitoring.