

LOWLAND WET GRASSLAND

Hampshire Biodiversity Partnership

1 INTRODUCTION

Lowland wet grassland includes areas of wet unimproved grassland occurring within major inland river floodplains. Depending on their local hydrology and previous or current land-use, these habitats may be referred to in various ways: grazing marsh, water-meadow, fen meadow or mead. Areas of grassland regularly flooded by overtopping of river-banks are sometimes called 'silver meadows'.

This plan covers a variety of grassland and fen-meadow communities. It does not cover other habitats such as tall fen, carr woodland, reedbed or the actual river course, nor does it cover coastal grazing marshes; all of these are covered by separate habitat action plans (HAPs). All other unimproved neutral grasslands not dependent upon high ground-water levels are also considered in separate HAPs. However, this plan should not be read in isolation, as actions proposed in other plans – such as the Chalk Streams HAP and Action Plan for Water and Biodiversity – will compliment those proposed here.

The extent and nature conservation value of lowland wet grassland has dramatically declined over the last 30 years, principally through agricultural intensification. In England and Wales, an estimated 97% of all unimproved lowland grassland was lost between 1930 and 1984¹⁰. No specific figures are available for wet grassland in Hampshire, but the level of loss is likely to be similarly high.

A study of the Itchen Valley showed a 45% loss of species-rich floodplain grassland between 1976 and 1994¹. Changes in the management of remaining wet grassland have also led to catastrophic declines in the number of breeding waders such as lapwing, snipe and redshank, and a decline in the use of these valleys by wintering wildfowl¹².

This degree of historic loss, combined with the relatively small remaining resource, has led to unimproved wet grassland being considered as one of the most threatened habitats in lowland Britain. Hampshire contains a significant amount of this remaining resource. But wet grassland is under continuing pressure from a range of

factors which reduce the quality and quantity of the habitat and increase its fragmentation.

The measures contained in this Plan seek to halt and reverse the loss of wet grassland, and enhance the value of these areas for nature conservation through appropriate management.

2 CURRENT STATUS

2.1 Description of Habitat

Lowland wet grassland includes all the unimproved and semi-improved grassland occurring within major river floodplains (mostly fen meadows which may be occasionally flooded), plus improved grassland within these boundaries that contains a network of ditches and may be regularly inundated (floodplain grazing marsh).

The remains of old water meadows with their associated ditch systems, other wet grasslands within the river floodplain, and ditches and smaller watercourses associated with wet grassland, are also included. Other grasslands and fen meadows dependent upon high ground-water levels (usually associated with feeder streams and springs) are also included as types of lowland wet grassland.

A list of the NVC communities included in each type of wet grassland is shown in Appendix 2, along with the relevant national action plan.

2.2 Distribution and Extent

English Nature's 1993 inventory of lowland wet grassland⁷ lists 66 sites in Hampshire totaling 4,814 ha. However, the methodology employed to produce this inventory means that many smaller sites and sites outside of the major floodplains have been overlooked. The Hampshire Biological Record database shows that the figure for lowland wet grassland is closer to 5,400 ha.

Lowland wet grassland in Hampshire is mainly restricted to the Avon, Test, Itchen and Meon valleys, with smaller areas in the

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Blackwater, western Rother and Wey catchments. Extensive areas of regularly flooded grassland are restricted to the Avon valley. In all the other valleys flooding is much less regular and less extensive: here a greater extent of the former wet grassland has been improved or converted to arable.

Where flooding does not occur, but the water levels remain high, fen meadow communities are more common. However, lack of management often results in succession to tall herbs, scrub and woodland.

Hampshire is recognized as being of national importance for the extent of its watermeadows. A recent historical study by Hampshire County Council (HCC)⁸ shows that 317 individual blocks of existing and relic watermeadows can be identified, mostly within the Avon, Test and Itchen floodplains, but also in other river valleys. An inventory listing all sites supporting lowland wet grassland will be included in the Action Plan for Water and Biodiversity prepared by the Hampshire Biodiversity Partnership.

2.3 Legislation and Site Designation

No 'Special Areas of Conservation' (SACs) have been selected for the presence of lowland wet grassland. However, two rivers, the Avon and Itchen, have been put forward to the EU as candidate SACs (cSACs): the Itchen for its population of southern damselfly, and the Avon for the Desmoulin's whorl snail. Both of these Hampshire priority species are found in areas of wetland outside the riverbanks. Both southern damselfly and Desmoulin's whorl snail are listed on Annex II of the EC Habitats Directive.

A large area in the Avon Valley (1,385 ha) has been designated as both an SPA and a Ramsar site for its breeding wader and wintering wildfowl interest, and as a Ramsar site for its wetland flora and fauna.

Approximately 3,325 ha of lowland wet grassland is contained in 25 Sites of Special Scientific Interest (SSSIs). The Avon Valley SSSI is the largest and most important and includes large areas of unimproved grassland. The River Test SSSI also includes some wetland outside of the riverbank. Some of these SSSIs are also designated National Nature Reserve (NNR) or Local Nature Reserve (LNR).

Lowland wet grassland is contained in 131 Sites of Importance for Nature Conservation (SINCs) – approximately 1,300 ha.

3 CURRENT FACTORS AFFECTING THE HABITAT

- Reduced frequency and duration of flooding
- Lower groundwater levels
- Reduced river level and flow rates
- Changes in agricultural management practices such as:
 - conversion to arable
 - improvement of grasslands (artificial fertiliser or slurry, land drainage, reseeding and the shift from hay-making to silage production)
 - lack of management through relaxation in grazing or mowing
- Global warming and climate change leading to changes in the watercycle that affect river flows. Also, the influence of atmospheric pollution, particularly deposition of nitrogen compounds, is not yet fully assessed or understood.
- Direct and indirect impacts from development, including gravel extraction

4 CURRENT ACTION

4.1 Site and Species Protection

- Relevant legislation and designations are discussed in section 2.3.
- The identification of wet grassland SINCs is now complete. These will be reviewed on a rolling programme in association with the production of local development plans.
- HCC currently have Management Agreements (under Section 39 of the Wildlife and Countryside Act 1981) for 80 ha of floodplain habitats.
- English Nature (EN) also have a number of agreements (under Section 15 of the Act) on lowland wet grassland sites, all of which are SSSIs.
- Hampshire Wildlife Trust (HWT) manage 13 wet grassland reserves (260 ha), most of which is unimproved neutral grassland or fen. Of these, 9 sites (220 ha) are SSSIs.

Local authorities also own and manage a large number of sites supporting these habitats.

4.2 Habitat Management and Programmes

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- Local Environment Agency Plans (LEAPs). These have been produced for all river catchments in Hampshire (Test, Itchen, Avon, Loddon, Wey and East Hampshire). LEAPs cover the full range of activities carried out by the Environment Agency (EA), including enhancement of biodiversity.
- Water Level Management Plans (WLMPs). The Plans are produced by the Environment Agency on behalf of MAFF. Currently 7 WLMP that include areas of lowland wet grassland are being produced: Itchen Valley (4 plans), River Test, The Moors and Titchfield Haven.
- Countryside Stewardship. Current MAFF/FRCA target areas which support areas of lowland wet grassland include the Itchen, Meon, Loddon and western Rother valleys. Objectives include the restoration of water meadows and conservation or restoration of wet grassland and species-rich meadows. Outside the target areas, proposals meeting these objectives will also be considered. Details of this scheme are given in Appendix 3.
- Environmentally Sensitive Areas (ESA). Established and run by MAFF/FRCA in the Test (since 1988) and Avon (1993) valleys to encourage the appropriate management of lowland wet grassland and associated habitats. Increasing levels of grant are given as agricultural inputs and grazing intensity decrease. Further details are given in Appendix 3.
- Avon Life Project. English Nature and the Environment Agency have secured EU 'Life funding' for the River Avon SAC. The project will focus on safeguarding floating formations of Ranunculus by developing catchment-based river conservation strategies. It is anticipated that a wider range of habitats and species will be enhanced through the work associated with these strategies.
- Itchen Valley Management Strategy. Produced by HCC in 1995, this strategy brings together a range of existing plans and policies relating to the valley. It makes recommendations for enhancing biodiversity, including the conservation of species-rich floodplain grassland.
- Local Biodiversity Action Plans are being prepared by a variety of organisations at a local level. Local BAPs that include areas of lowland wet grassland include the Avon Valley and Blackwater Valley.

- Strategy and Consenting Protocols. These agreements are being drawn up between EA and EN to help guide the work of the two organizations in administering consents for third party works on riverine SSSIs.
- The Habitat Management Advisory Project (HMAP). A joint initiative between HWT and HCC that provides advice to landowners on the management of SINCS.
- Hampshire Grazing Project. This joint initiative between HCC and English Nature aims to assist landowners in overcoming difficulties in grazing conservation sites. Current work focuses on north-east Hampshire and East Hampshire AONB.
- Hampshire FWAG. The project officers provide advice to all landowners throughout the county on general nature conservation issues.
- Local Action. A number of other projects and district council officers provide advice and assistance locally:
 - Avon Valley and West Hampshire Project
 - Blackwater Valley Project Team
 - River Wey Trust
 - River Rother Trust
 - Fareham Borough Council
 - Eastleigh Borough Council
 - Gosport Borough Council



4.3 Action for Species

Table 1 (Appendix 1) gives details of priority species in Hampshire found primarily in lowland wet grassland. Action proposed in this Plan will be the principal means of conserving most of these species, although two species – southern damselfly and large mouthed valve snail – will have their own Species Action Plans (SAPs). In some cases additional action plans and programmes will also contribute to conserving priority species: for example, UK Species Action Plans (UK SAP) and Butterfly Conservation Regional Action Plans (BC RAP).

Table 3 (Appendix 1) lists those Hampshire priority species that occur in lowland wet grassland but whose main habitat is **not** lowland wet grassland. Although action in this Plan may contribute to the conservation of these species, other HAPs have key responsibility for their conservation. Five of the species on Table 3 have been identified as requiring a SAP.

Some priority species identified in Appendix 1 are already the subject of specific conservation efforts. For example, breeding waders such as snipe and redshank will be assisted through ESA schemes: targets for wet grassland proposed for inclusion within Tier 1c or subject to the Breeding Wader Supplement cover 1000 ha (see Appendix 3).

4.4 Survey, Research and Monitoring

- 1,377 wet grassland sites have been surveyed and are recorded on the Hampshire Biological Record. 733 sites (53%) consist of unimproved or at least only semi-improved grassland.

- The EA has additional survey information for the lower Avon Valley. The Avon Valley Conservation Liaison Group have produced a comprehensive checklist of baseline survey and monitoring requirements for the valley and has set targets in the Avon Valley Local Action Plan.

- Wet grassland SINCs are being re-surveyed on a rolling 10 year monitoring programme. An audit of all potential

unimproved/semi-improved grassland sites is being undertaken by HCC to help target new survey work.

- There are ongoing breeding wader surveys in the major river valleys, co-ordinated by a variety of organisations. However there is currently no agreed programme for monitoring changes.
- A number of invertebrate surveys have been undertaken, including:
 - Large mouthed valve snail survey undertaken in 1999 by English Nature
 - Various southern damselfly surveys undertaken in 1989 and 1999 by English Nature and the Environment Agency
 - Desmoulin's whorl snail surveys undertaken in 1995 and 1996.

The Wet Grassland Guide (1997)⁵ and the Lowland Grassland Management Handbook (1999)⁴ are the most up to date references for management of floodplain grassland.

5 OBJECTIVES

The overall aim of this Plan is to protect and enhance the biodiversity of lowland wet grassland in Hampshire. This broad aim translates into the specific objectives set out below. Where feasible, objectives have been allocated targets against which achievement can be measured: for example, total areas to be restored or dates for completion. The 'Proposed Action' table in section 6 identifies the action to be taken to meet these objectives.

	OBJECTIVE	PROPOSED ACTIONS
A	<p>Ensure no further loss or degradation of lowland wetland grassland:</p> <ul style="list-style-type: none"> ▪ Maintain the extent and quality of the existing lowland wet grassland and ensure no further fragmentation. 	1-15, 20, 22, 27, 41-46
B	<p>Increase the extent of lowland wet grassland:</p> <ul style="list-style-type: none"> ▪ By reversion and appropriate management, particularly within the major river valleys 	3, 11-19, 21, 30, 32, 33, 44
C	<p>Improve the quality of lowland wet grassland – achieve favourable management on existing sites:</p> <ul style="list-style-type: none"> ▪ Within SSSIs, initiate restoration management on all areas of habitat in unfavourable condition in order to achieve favourable conservation status on all lowland wet grassland habitat within SSSIs (3800 ha) by 2010 ▪ Outside SSSIs implement restoration management on sites in unfavourable condition to ensure 30% of sites are in favourable condition by 2005, and as near as practical to 100% (1600 ha) by 2010 	1-3, 6, 8-20, 22, 25, 31-33, 41-44, 46
D	<p>Ensure that needs of Hampshire priority species are met:</p> <ul style="list-style-type: none"> ▪ Through the recommendations within this HAP or through the provision of a separate Species Action Plan (SAP), or other plans as identified in Appendix 1 	11-19, 23-28, 44
E	<p>Improve knowledge of lowland wet grassland and associated species in Hampshire through survey, research and monitoring</p>	11, 12, 26, 28-38, 44
F	<p>Communication, awareness and promotion:</p> <ul style="list-style-type: none"> ▪ Promote the importance of lowland wet grassland, its associated species, and the threats to them. Communicate with and provide information to key sectors, including statutory agencies, NGOs, landowners and managers, schools, community groups and members of the public 	11, 12, 29, 38-47

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6 PROPOSED ACTION

The following table lists the actions required to achieve the objectives set out this Plan. Each action has been assigned to one or more 'Key Partners'. Key Partners are those organisations that are expected to take responsibility for the delivery of the actions assigned to them, according to the targets set in this Plan. Other organisations may also be involved in the delivery of action, and they have been indicated in the 'Others' column.

Key to symbols in Action Table	
◆	To be completed by the indicated year. Work can commence at any time before the due date, at the discretion of the Key Partner.
◆⇄	Design or production of a plan/strategy to be completed by this year and then followed by its implementation.
➡	To start by the indicated year and usually followed by ongoing work. A start arrow in year 2000, can indicate a new action or a new impetus to existing work.
⇄	Work that has already begun and is ongoing.

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	ACTION	DELIVERY BY		YEAR						MEETS OBJ.
		Key Partner	Others	2000	2001	2002	2003	2004	2010	
◆ = Complete by ◆⇄ = Design by and implement ➡ = Start by ⇄ = Ongoing										
Habitat Protection										
1	Review the selection of SSSIs to ensure all relevant sites are designated	EN	HCC, HWT RSPB	⇄	⇄	⇄	⇄	⇄	⇄	A, C
2	Review SINC selection criteria and ensure that all relevant sites are identified	HCC	HWT, EN, LAs			◆⇄				A, C
3	Review and/or develop site acquisition policies and purchase where appropriate		ALL		➡					A, B C
4	Ensure that lowland wet grassland is safeguarded from development through forward planning and development control	LAs	EN, HWT	⇄	⇄	⇄	⇄	⇄	⇄	A
5	Undertake review of all current mineral extraction, water abstraction and effluent discharge licenses/approvals and planning permissions affecting SPA/SACs under the Conservation Regulations 1994	HCC, EA, WC	EN					◆		A
6	Ensure that Asset Management Planning leads to a reduction in water abstraction rates from locations which directly or indirectly affect key sites supporting lowland wet grassland	EA, WC	EN	⇄	⇄	⇄	⇄	⇄	⇄	A, C
7	Ensure implementation of EU Directive on Environmental Assessment concerning changes from uncultivated or semi-natural land to intensive agricultural use	MAFF	EN, LAs		◆					A

Habitat Management, Incentive Schemes and Other Resources										
8	Review SSSIs/SACs supporting lowland wet grassland to ensure all are under favourable and appropriate management	EN						◆⇄ (2005)		A, C
9	Ensure favourable conservation management on all sites supporting lowland wet grassland which are managed by conservation organisations	HCC, HWT, NT	LAs, MAFF/FRCA	⇄	⇄	⇄	⇄	⇄	⇄	A, C
10	Seek to achieve favourable conservation management on all non-SSSI (e.g. SINCs) sites which support lowland wet grassland	HMAP	MAFF/FRCA, FWAG	⇄	⇄	⇄	⇄	⇄	⇄	A, C
11	Incorporate actions to achieve HAP objectives and targets relevant to into LEAPs for all river valleys supporting lowland wet grassland	EA			◆					A-F
12	Seek to achieve objectives and targets within LEAP Action Plans relevant to this HAP	EA		➔						A-F
13	Complete WLMPs for areas within major river valleys (Avon, Itchen, Test) and for The Moors and Titchfield Haven	EA	EN, HWT, RSPB		◆					A-D
14	Implement all WLMPs relevant to this plan	MAFF	EA, EN, HCC	◆						A-D
15	Review coverage of WLMPs and extend to other key areas supporting lowland wet grassland	MAFF	EA, EN, HCC				◆⇄			A-D
16	Endeavour to incorporate the needs of lowland wet grassland and/or priority species when developing, revising and/or updating incentive schemes/strategies	MAFF/FRCA		⇄	⇄	⇄	⇄	⇄	⇄	B, C, D
17	Seek to ensure that Test and Avon Valley ESA targets are met (see Appendix 3 for targets)	MAFF/FRCA				◆				B, C, D
18	Review Test and Avon ESA targets	MAFF/FRCA					◆			B, C, D
19	Seek to ensure that new ESA targets are met by 2007	MAFF/FRCA							◆	B, C, D
20	Facilitate the beneficial grazing of lowland wet grassland sites	HGP		⇄	⇄	⇄	⇄	⇄	⇄	A, C
21	Devise a strategy for the expansion of floodplain grazing marsh which helps to reduce fragmentation by linking existing sites, particularly within ESAs, but also within all other major river valleys	HCC	EA, EN				◆			B
22	Provide information and advice to managers of existing and potential lowland wet grassland	MAFF/FRCA HMAP, HGP	FWAG, HWT, RSPB	⇄	⇄	⇄	⇄	⇄	⇄	A, C
Species Action										
23	Prepare Species Action Plans (SAPs) for species associated with lowland wet grassland, that are not	HWT, EA, EN	HCC					◆		D

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adequately covered by this plan or others, as identified in Appendix 1											
ACTION	DELIVERY BY	YEAR								MEETS OBJ.	
		Key Partner		Others		2000	2001	2002	2003		2004
				◆ = Complete by ◆⇄ = Design by and implement ➡ = Start by ⇄ = Ongoing							
Species Action (continued)											
24	Encourage landowners/ managers and their advisors to ascertain which priority species (listed in Appendix 4) occur on their lowland wet grassland sites and ensure that appropriate management is implemented	EN, HWT, RSPB, EA	HMAP, FWAG, LAs	⇄	⇄	⇄	⇄	⇄	⇄	D	
25	Identify and promote knowledge of priority species that can be used to highlight specific adjustments to standard management regimes and produce appropriate guidelines	EN, HWT, RSPB, EA	HCC		➡					C, D	
26	Develop a monitoring strategy for Hampshire priority species which occur on lowland wet grassland sites	HWT, EN	LAs			◆⇄				D, E	
27	Ensure that consideration of the needs of priority species is incorporated into the forward planning and development control process	LAs		⇄	⇄	⇄	⇄	⇄	⇄	A, D	
28	Identify 'flagship' species that can be used as indicators to assess progress of this HAP.	HWT	HCC			◆				D, E	
Survey, Research and Monitoring											
29	Complete inventory of lowland wet grassland sites	HCC	HWT, EN			◆				E, F	
30	Produce inventory of potential areas for expanding floodplain grazing marsh within each major river valley	HCC	EA			◆				B, E	
31	Establish monitoring programme to ascertain proportion of habitats under appropriate management and in favourable condition	EN, HCC			◆⇄					C, E	
32	Devise and undertake a programme of ecological monitoring to ensure objectives of ESA are achieving biodiversity targets	MAFF/FRCA	EN, RSPB, HCC, HWT	➡						B, C, E	
33	Determine proportion of grassland in ESA and Stewardship agreement which is suitable for restoration	MAFF/FRCA		◆						B, C, E	
34	Achieve full Phase 2 survey coverage of all sites supporting lowland wet grassland	EN, HCC	HWT, LAs, EA					◆		E	
35	Implement a rolling re-survey programme for lowland wet grasslands SINCs at a 10-yearly interval	HCC		◆⇄						E	
36	Establish monitoring programme to ascertain the ecological success of WLMPs	MAFF	EN, EA	➡						E	
37	Develop a strategy for ecological survey of lowland wet	HCC	EN, HWT		◆⇄					E	

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	grassland in support of the objectives of this Plan									
38	Ensure that all relevant data on lowland wet grassland is incorporated into the Hampshire Biological Record and is fed into the National Biodiversity Network (NBN)	HCC		↔	↔	↔	↔	↔	↔	E, F
Communication and Publicity										
39	Support the actions of the Education & Awareness Action Plan relevant to this habitat and priority species	ALL	HWT, LAs	↔	↔	↔	↔	↔	↔	F
40	Increase public awareness of lowland wet grassland, including production of promotional material and encouragement of public access to appropriate sites:	HWT, BTCV, HCC,		↔	↔	↔	↔	↔	↔	F
41	Identify suitable sites and establish those sites as centres to demonstrate good practice and to raise awareness of lowland wet grassland	EN	HWT, HCC					◆↔		A, C, F
42	Compile an index of information sources and guidance on good management practices for lowland wet grassland and associated priority species	HCC, HWT			◆↔					A, C, F
43	Raise awareness of incentive schemes and projects relevant to the management of lowland wet grassland	MAFF/FRCA FWAG	NFU, CLA, HMAP, HGP	↔	↔	↔	↔	↔	↔	A, C, F
44	Establish consultation group for Test and Itchen river valleys	EA, EN						◆		A-F
45	Develop 'Strategy and Consenting Protocol' for all riparian SSSIs	EA, EN		◆						A, F
46	Promote the ecology and conservation requirements of this habitat and associated priority species, particularly amongst farmers and their advisors	MAFF/FRCA	NFU, CLA, HMAP, HGP, FWAG	↔	↔	↔	↔	↔	↔	A, C, F
47	Involve local communities in the conservation of lowland wet grassland sites, where appropriate	HWT, BTCV		↔	↔	↔	↔	↔	↔	F

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KEY TO ORGANISATIONS

BTCV British Trust for Conservation Volunteers
 CLA Country Landowners' Association
 DCs District Councils
 EA Environment Agency
 EN English Nature
 FRCA Farming and Rural Conservation Agency
 FWAG Farming and Wildlife Advisory Group
 HCC Hampshire County Council
 HGP Hampshire Grazing Project

HMAP Habitat Management Advisory Project
 HWT Hampshire Wildlife Trust
 LAs Local Authorities (HCC & DCs)
 MAFF Ministry of Agriculture, Fisheries and Food
 MoD Ministry of Defence
 NT National Trust
 NFU National Farmers Union
 RSPB Royal Society for the Protection of Birds
 WC Water Companies

APPENDIX 1

Key to abbreviations in Tables 1 and 2 – see ‘Action in addition to HAP’ and ‘Status/Protection’

Abbreviation	Definition
ACTION IN ADDITION TO HAP (Other Plans Relevant to Priority Species)	
UK SAP	Species Action Plan prepared under UK Biodiversity programme
UK Grouped SAP	Species catered for by a grouped Species Action Plan prepared under UK Biodiversity programme
UK Species Statement	Conservation of species generally achieved through HAPs. Statement prepared under UK Biodiversity programme to link the relevant Plans.
No Plan	Species removed from revised UK priority list. No Action Plan / Species Statement produced
BC RAP	Butterfly Conservation Regional Action Plan
BC NAP	Butterfly Conservation National Action Plan
PROTECTION: European (EC Habitats Directive)	
Annex II	Designation of protected areas for animals and plants listed
Annex IV	Special protection for animals and plants listed
Annex V	Control of exploitation of animals and plants listed
PROTECTION: British (Wildlife and Countryside Act 1981)	
Sch. 1	Special protection for birds listed
Sch. 5	Special protection for animals listed
Sch. 5 (sale)	Protection against sale for animals listed (Schedule 5 section 9 (5))
Sch. 8	Special protection for plants listed
STATUS: International (International Union for the Conservation of Nature)	
IUCN VU	Vulnerable – Species facing high risk of extinction
IUCN LR/cd	Lower Risk / conservation dependent species – Species that do not satisfy the criteria for ‘Critically Endangered’, ‘Endangered’ or ‘Vulnerable’. They are ‘conservation dependent’ if they are the focus of specific conservation programmes, which if stopped, would result in the taxon qualifying for one of the threatened categories within a period of five years.
IUCN LR/nt	Lower Risk / near threatened species – Species that do not qualify for ‘conservation dependent’ but are close to ‘Vulnerable’ status
IUCN DD	Data Deficient – Insufficient data to make a direct or indirect assessment of a species status, based on its distribution and/or population status.
STATUS: British – Mammals (Red Data Book)	
RDB	Mammal species listed in the British Red Data Book
STATUS: British – Plant and Fungi (Red Data Book and associated)	
RDB Cr	Critically Endangered – Extremely high risk of extinction in the near future
RDB En	Endangered – Very high risk of extinction in the near future
RDB V	Vulnerable – High risk of extinction in the medium-term future
RDB K	Insufficient data to assess status
NS	Nationally Scarce – Plants not on red list but occurring in 16 to 100 10x10 km squares
NT	Near Threatened – Plants not on red list but occurring in 15 or fewer 10x10 km squares
STATUS: British – Invertebrates (Red Data Book and associated)	
RDB En	Endangered – In danger of extinction
RDB V	Vulnerable – Declining or occurring in a vulnerable habitat. Usually occurs in less than 16 10x10 km squares
RDB R	Rare – Not declining but occurring in less than 16 10x10 km squares
RDB K	Insufficiently known – Suspected, but not definitely, Endangered, Vulnerable or Rare
NS (a)	Nationally Scarce – Occurring in 16 to 30 10x10 km squares (for well recorded species)
NS (b)	Nationally Scarce – Occurring in 31 to 100 10x10 km squares (for well recorded species)
STATUS: Royal Society for the Protection of Birds (Birds of Conservation Concern)	
Red List	Various criteria, including a 50% decline in breeding population or range over last 25 years
Amber List	Various criteria, including a 25-49% decline in breeding population or range over last 25 years

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Table 1 - Hampshire priority species found primarily in lowland wet grassland

Scientific name	Common name	Group	Status/ Protection	Habitat/Ecology	Hants Distribution	Specific management requirements	Action in addition to HAP	Hants SAP?
<i>Hydrophilus piceus</i>	great silver water beetle	Beetles	RDB R	Weed-choked ditches in floodplain grazing marshes	Few records from South Hampshire	Ditch clearance may be a threat	no	no
<i>Anser albifrons</i>	white-fronted goose	Birds	RSPB Amber List	Unimproved neutral grassland in floodplain	Scarce winter visitor and passage migrant. Over winters in Avon Valley	-	no	no
<i>Cygnus columbianus</i>	Bewick's swan	Birds	Sch. 1, RSPB Amber List	Unimproved neutral grassland in floodplain	Regionally important, over winters in Avon Valley	-	no	no
<i>Gallinago gallinago</i>	snipe	Birds	RSPB Amber List	Unimproved neutral grassland in floodplain	Sites include New Forest, Greywell Moors, Farlington Marshes, Avon Valley	Require soils moist enough to be probed for earthworms and crane fly larvae	no	no
<i>Tringa totanus</i>	redshank	Birds	RSPB Amber List	Grazing marsh	Common winter visitor in internationally significant numbers (coastal sites, particularly Chichester and Langstone Harbours)	-	BC RAP	no
<i>Vanellus vanellus</i>	lapwing	Birds	RSPB Amber List	Farmland, grassland	Widespread, but localised	Young benefit from standing water for invertebrate food supply and grass tussocks for shelter.	no	no
<i>Coenagrion mercuriale</i>	southern damselfly	Dragonflies	IUCN VU, Annex II, Sch. 5, RDB R	Boggy runnels and base-rich streams in heathland + chalk rivers, water meadows, floodplains	Strongholds in the New Forest and Itchen Valley, also found in Test Valley, Avon Valley	-	UK SAP	yes
<i>Odontomyia argentata</i>	a soldier fly	Flies	RDB V	Wetlands including fen and carr; associated with well vegetated ditches	Leckford and Bishops Waltham, Lower Test, Greywell Moors	-	no	no
<i>Syneches muscarius</i>	a fly	Flies	RDB V	Fen meadows	National stronghold, Winnal Moors, Itchen Valley	-	no	no
<i>Dactylorhiza traunsteineri</i>	narrow-leaved marsh-orchid	Flw Plants	NS	Wet, base-rich habitats, particularly fen meadows and flushes	National stronghold; very rare, records from Greywell Moors, Mapledurwell Fen.	Maintain water levels	no	no

Lowland Wet Grassland

<i>Polydesmus coriaceus (inconstans)</i>	a millipede	Millipedes	-	Damp riverine grassland, also quarries and arable margins	likely to be present	-	no	no
Scientific name	Common name	Group	Status/Protection	Habitat/Ecology	Hants Distribution	Specific management requirements	Action in addition to HAP	Hants SAP?
<i>Ashfordia granulata</i>	a snail	Molluscs	-	Prefers damp, shady habitats including woodland, hedgerows and wetlands	Widespread	-	UK SAP	no
<i>Valvata macrostoma</i>	Large mouthed valve snail	Molluscs	RDB V	Clean, hard water in ditches which have often not been cleared of weed/sediment for many years - typical on lowland grazing marsh.	Two ditches in Avon Valley	Ditches should be in advanced stage of vegetational succession	no	yes
<i>Xanthorhoe biriviata</i>	balsam carpet	Moths	NS (a)	Associated with lightly wooded water meadows, bordering rivers and canals, larvae on Orange balsam	Well established, apparently spreading.	-	no	no

Table 2 - Priority species, thought to be extinct in Hampshire, which are primarily associated with hedgerows

Scientific name	Common name	Group	Status/Protection	Habitat/Ecology	Hants Distribution	Specific management requirements	Action in addition to HAP
<i>Badister peltatus</i>	a ground beetle	Beetles	NS (a)	Lush vegetation and mud at edge of water; probably predatory	Only old records from Hants, probably extinct	-	UK SAP
<i>Segmentida nitida</i>	shining ram's-horn snail	Molluscs	RDB En	Clean, hard water in ditches which have not been cleared of weed/sediment for many years - typical on lowland grazing marsh.	Only old records in Hants	Ditches should be in advanced stage of vegetational succession	UK SAP

Table 3 - Priority species, found primarily in other habitats, but which occur in lowland wet grassland

Scientific name	Common name	Group	Primary HAP	Hants SAP?
<i>Triturus cristatus</i>	great crested newt	Amphibians	Dependent on many habitats, mosaic/landscape species	yes
<i>Bidessus unistriatus</i>	a water beetle	Beetles	Fen, carr, marsh, swamp, reedbed	no
<i>Alauda arvensis</i>	skylark	Birds	Arable land	yes
<i>Anas strepera</i>	gadwall	Birds	Open standing water	no
<i>Cettia cetti</i>	Cetti's warbler	Birds	Fen, carr, marsh, swamp, reedbed	yes
<i>Limosa limosa</i>	black-tailed godwit	Birds	Mudflats, eelgrass beds	no
<i>Motacilla flava</i>	yellow wagtail	Birds	Coastal grazing marsh	no
<i>Boloria euphrosyne</i>	pearl-bordered fritillary	Butterflies	Ancient semi-natural woodland	yes
<i>Boloria selene</i>	small pearl-bordered fritillary	Butterflies	Heathland, acid grassland, bog	no
<i>Cupido minimus</i>	small blue	Butterflies	Lowland Calcareous grassland	no
<i>Eurodryas aurinia</i>	marsh fritillary	Butterflies	Lowland calcareous grassland	yes
<i>Gryllotalpa gryllotalpa</i>	mole cricket	Crickets	Fen, carr, marsh, swamp, reedbed	no

Lowland Wet Grassland

<i>Chamaemelum nobile</i>	chamomile	Flw Plants	Ephemeral ponds	no
<i>Cyperus fuscus</i>	brown galingale	Flw Plants	Ephemeral ponds	no
<i>Lepus europaeus</i>	brown hare	Mammals	Arable land	no
<i>Vertigo moulinsiana</i>	Desmoulin's whorl snail	Molluscs	Fen, carr, marsh, swamp, reedbed	no
<i>Hemaris tityus</i>	narrow-bordered bee hawk	Moths	Unimproved neutral dry grassland, hay meadows	no
<i>Noctua orbona</i>	lunar yellow underwing	Moths	Lowland calcareous grassland	no

APPENDIX 2:

NVC COMMUNITIES COVERED BY THIS PLAN

- **Fen meadow:** **M22/23** *Juncus subnodulosus* - *Cirsium palustre*, **M24/25** *Molinia caerulea* - *Cirsium dissectum* and **MG8** *Cynosurus cristatus* - *Caltha palustris*. These communities are found within the river valleys away from areas that are regularly inundated, and on wetter unimproved sites away from the river valleys.
- **Lowland wet grassland/Floodplain grazing marsh:** **MG4** *Alopecurus pratensis* - *Sanguisorba officinalis*, **MG6** *Lolium perenne*-*Cynosurus cristatus*, **MG9** *Holcus lanatus* - *Deschampsia cespitosa*, **MG10** *Holcus lanatus* - *Juncus effusus*, **MG11** *Festuca rubra*-*Agrostis stolonifera* - *Potentilla anserina* **MG12** *Festuca arundinacea*, and **MG13** *Agrostis stolonifera* - *Alopecurus geniculatus*. These communities may be improved, and mown rather than grazed, but will be regularly inundated. Ditches are a consistent feature, but they may also occur in fen meadow habitat in the river floodplains.
- **Aquatic/Swamp communities in ditches:** At a national level the aquatic communities covered by this plan include **A1-A6, A8-A13, A15-A16, A19-A21** plus the swamp communities **S4-S8, S12-S14, S16-S18, S20-S23, S25-S26, S28**. The distribution of these communities within Hampshire needs to be clarified.
- **Improved grasslands:** Various grassland communities of no/little botanical importance within the flood plain

HABITAT ACTION PLAN

Relevant National Habitat Action Plans include:

- *Molina/Juncus* fen meadows and rush pastures are covered by the 'Purple Moor Grass and Rush HAP' published in 1996
- Unimproved flood meadows (MG4) and flood pasture (MG8) are covered by the 'Lowland Meadows HAP' published in 1998
- Semi-improved wet grassland in floodplains are covered by the 'Coastal and Floodplain Grazing Marsh HAP' published in 1996.

APPENDIX 3:

MAFF AGRI-ENVIRONMENT SCHEMES

Countryside Stewardship - The area of land entered into the scheme during 1991-1997 under the relevant options is shown below. It is not possible to determine what proportion is unimproved.

- | | |
|---|--------|
| ◦ Restoration of water meadows | 29 ha |
| ◦ Management of riverside grassland | 415 ha |
| ◦ Creation of grassland (all habitat types) | 206 ha |
| ◦ Lowland pasture management | 722 ha |
| ◦ Hay meadow management | 149 ha |

Environmentally Sensitive Areas (ESAs) are MAFF schemes and have been established in the Test and Avon Valleys since 1988 and 1993 respectively. The aim is to maintain and enhance the pastoral landscape character and wildlife of the valleys, by encouraging the appropriate management of damp grassland and its associated habitats. A number of management tiers are available, which attract increasing levels of payment as agricultural inputs and grazing intensity decrease, with particular emphasis on creating winter flooding and appropriate conditions for breeding waders. Grants are also available for the reversion of arable land to extensive permanent grassland, the creation of buffer strips around arable field margins adjacent to water courses, and for capital works such as creating for water management structures.

The key tiers for achieving the objectives of this Action Plan are described below, together with targets for the area of land to be established in each tier (figures for Avon Valley ESA include Dorset and Wiltshire; no separate figures for Hampshire are available).

- **Tier 1B** - Extensive permanent grassland: no slurry or inorganic pesticides and restrictions on mowing and other operations during spring and early summer. **Test ESA current uptake 834 ha, target 900 ha; Avon ESA current uptake 1,335 ha, target 1,300 ha.** Unimproved grassland would normally be entered into this or a higher tier.
- **Tier 1B(S)** - Tier 1B plus Breeding Wader supplement: reduced stocking rates in spring and early summer. **Test ESA current uptake 0 ha, target 100 ha; Avon ESA current uptake 177 ha, target 400 ha.**
- **Tier 1C** - Wet Grassland: as 1B(S) plus management of water levels to create surface flooding in winter and high water table/shallow pools in spring and early summer. **Test ESA current uptake 0 ha, target 100 ha; Avon ESA current uptake 71 ha, target 400 ha.**
- **Tier 2(A)** - Arable reversion to permanent grassland: reseeding and subsequent management as tier 1(B) **Test ESA current uptake 134 ha, target 150 ha; Avon ESA current uptake 79 ha, target 170 ha.** Creation of species-rich swards is not explicit within the prescriptions, but could be achieved this way.

**HABITAT
ACTION
PLAN**

REFERENCES

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- 11 Coastal and Floodplain Grazing Marsh Habitat Action Plan, *Biodiversity: The UK Steering Group Report, Volume 2: Action Plans*, HMSO, 1995.
- 12 *Silver Meadows: Do they have a future?* RSPB 'Land for Life' leaflet, 1999.

This Plan is one of many Habitat, Species and Topic Action Plans being prepared by the Hampshire Biodiversity Partnership. It will be monitored by the Partnership and fully reviewed and updated in 2004.

This habitat action plan has been prepared by Richard Mould and the Lowland Wet Grassland HAP

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