

DORSET BIODIVERSITY STRATEGY

Dorset Biodiversity Partnership

The Dorset Biodiversity Partnership is a group of organisations brought together by a common aim to reverse the decline of biodiversity in Dorset through positive, collaborative action. The Dorset Biodiversity Strategy has been prepared by the Partnership through wide consultation.

Borough of Poole
Bournemouth Borough Council
British Trust for Conservation Volunteers
Business Link
Butterfly Conservation (Dorset Branch)

Centre for Ecology and Hydrology
Christchurch Borough Council
Country Landowners & Business Association

Dorset County Council*
Dorset Ecological Consultancy
Dorset Environmental Records Centre
Dorset's Important Geological Sites Group
Dorset Natural History & Archaeological Society
Dorset Wildlife Trust*

East Dorset District Council
English Nature*
Environment Agency*

Farming & Wildlife Advisory Group*
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National Trust*
North Dorset District Council

Purbeck District Council*
Purbeck Heritage Committee

Royal Society for the Protection of Birds*
Rural Development Service (DEFRA)

Terence O'Rourke Ltd

Wessex Silviculture Group
Wessex Water*
West Dorset District Council
Weymouth and Portland Borough Council
Woodland Trust

* These organisations form the Dorset Biodiversity Partnership Management Group.

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FOREWORD

All of us involved in nature conservation in Dorset have made considerable progress since 1992 when the Convention on Biodiversity was signed at the Rio Earth Summit. We have seen huge sums of money directed into the county to look after our wildlife; I estimate that, averaged over the past ten years, we are spending well over a million pounds a year on projects, excluding our staff salaries. There is no doubt; this is an exciting time to be involved in wildlife in Dorset. We should not forget that as well as looking after the wildlife, such investment does the economy of our predominantly rural county a power of good. We owe our success partly to the exceptional quality of wildlife that Dorset holds, but also to the determination and hard work of many individuals who work to conserve this ecological wealth.

But we have not, until now, achieved our success by taking the conventional route through writing a Local Biodiversity Action Plan. This was a deliberate choice on our part following the setting up of the Dorset Conservation Forum in 1997. At the time we felt that writing such a plan would have diverted resources away from the action we were already involved in, and we were happy to be led by others, notably the Biodiversity Strategy for the South West, and, more locally, the Purbeck Biodiversity Action Plan. We concentrated on writing only selected plans for habitats and species where little was happening, and where threats would only continue without co-ordination and fund raising.

Today the situation is different. The ethos of biodiversity conservation has been successfully carried forward largely by key government agencies, the voluntary conservation sector, parts of local authorities and many private landowners and farmers. The challenge ahead is for us to export this culture across all sectors. We need to see fundamental changes in policy that implant biodiversity considerations in all areas of economic activity, both public and private. The Government has recently published its biodiversity strategy for England, and the Dorset Biodiversity Strategy mirrors this thinking. We have set out a framework for how, at the county level in the next ten years, we believe we can make the necessary changes to conserve and enhance our natural environment.

To deliver the aims set out below we need to build on existing partnerships, bring on board new organisations and encourage involvement of people for whom biodiversity may not seem relevant to their daily lives. We need to expand our education and communication efforts, and to develop our information and reporting mechanisms, so that we can see how our work fits into the regional and national pictures. Finally, we need to continue to raise money to fund the co-ordination of our work. This Strategy is our vision for the future for the wildlife of Dorset and provides a mechanism for all of us to make our commitment to its conservation.

Phil Sterling
Dorset County Council
May 2003

CONTENTS

page nos

1	1 INTRODUCTION
1	1.1 Biodiversity and why it matters
2	1.2 The need for a Dorset Biodiversity Strategy
4	1.3 Links with wider plans and policies
6	1.4 Selecting priority habitats and species
8	1.5 Next steps to be taken as part of the local biodiversity process
11	2 PROGRAMMES OF ACTION FOR TOPICS AND ASSOCIATED HABITATS
11	2.1 Introduction
15	2.2 Topic Action Plan: Forestry and Woodland Management:
	Habitat Statements:
22	2.2.1 Lowland mixed deciduous woodland
23	2.2.2 Wet woodland
26	2.2.3 Lowland beech and yew woodland
27	2.3 Topic Action Plan: Agriculture:
	Habitat Statements:
33	2.3.1 Lowland meadows
36	2.3.2 Purple moor grass and rush pasture
38	2.3.3 Lowland calcareous grassland
41	2.3.4 Lowland dry acid grassland
44	2.3.5 Ancient and/or species rich hedgerows
47	2.3.6 Arable land
50	2.3.7 Ponds
53	2.4 Topic Action Plan: Freshwater Management:
	Habitat Statements:
60	2.4.1 Coastal and floodplain grazing marsh
63	2.4.2 Chalk streams
66	2.4.3 Reedbeds
69	2.4.4 Fens

71	2.5	Topic Action Plan: Marine and Coastal Issues:
77	2.5.1	Grouped Coastal Habitat Statement: Maritime cliff and slope Coastal sand dunes Coastal vegetated shingle <i>Sabellaria alveolata</i> reefs Mudflats Coastal saltmarsh Sheltered muddy gravels Littoral chalk
84	2.5.2	Grouped Marine Habitat Statement: Saline lagoons <i>Sabellaria spinulosa</i> reefs Seagrass beds Sublittoral sands and gravels Tidal rapids Maerl beds Sublittoral chalk Mud in deep water <i>Mytilus edulis</i> beds Brittlestar beds
89	2.6	Habitat Statement for Wood pasture, parkland and veteran trees
91	2.7	Habitat Statement for Lowland heathland
97	3	COMMON THEMES
97	3.1	Raising awareness and involvement
99	3.2	Data and monitoring
101	3.3	Land-use planning
103	4	MAKING IT HAPPEN
103	4.1	The Partnership Approach: Headline actions for key sectors
106	4.2	Funding
109	4.3	Implementation – the need for Lead Partners
110	4.4	Monitoring of Progress
110	4.5	Reviewing the Actions
		APPENDICES
i	A	Key references
ii	B	Important international, national and local sites in Dorset
iv	C	Key to Habitat Status tables
v	D	Biodiversity Targets by Natural Areas
viii	E	Acronyms used in the text

1

INTRODUCTION

1.1 Biodiversity and why it matters

WHAT IS BIODIVERSITY?

Biodiversity is the variety of life. It concerns the whole range of living things, from flowering plants to birds, from butterflies to mosses and lichens and even bacteria. Biodiversity also refers to the wide range of habitats which plants and animals depend upon. It is not just about rare or threatened species, it embraces all life, from the commonplace to the greatly endangered.

The conservation of biological diversity is central to the principle of sustainable development which strikes a balance between the environment, economy and society.

In 1992, the UK was one of over 150 countries to sign the 'Convention on Biological Diversity' at the Earth Summit in Rio de Janeiro. In response to this the government produced a UK Biodiversity Action Plan (UK BAP) in 1994, followed by a series of action plans for priority habitats and species. Together, these provide a framework for conserving and enhancing biodiversity in the UK. More recently, in 2002, a Biodiversity Strategy for England was launched, which seeks to ensure biodiversity considerations become embedded in all main sectors of public policy and sets out a 5 year programme of action.

Is the biodiversity of Dorset threatened?

Dorset is one of the richest counties for wildlife in England. However, in common with the rest of the UK there have been widespread declines in the semi-natural habitats and populations of rare and common species in the last 80 years, mainly as a result of human activity. These declines have accelerated over the last 30 years. National examples include:

- Once common species such as the tree sparrow have declined by over 85%.
- Breeding populations of the marsh fritillary have reduced by 66% in the last 10 years.
- 97% of unimproved lowland meadows have been lost in the last 50 years.

Extensive wildlife habitats have been lost or suffered deterioration, leaving most remaining sites small, fragmented and often in an unfavourable condition.

The need to reverse fragmentation and isolation of the natural resource is made more urgent by the effects of climate change. Many species have the potential to adapt to changing climatic conditions by shifting their normal ranges both northwards and to higher altitudes. However in Dorset, and the UK as a whole, these natural shifts are likely to be hindered or even prevented by habitat fragmentation.



1.2 The need for a Dorset Biodiversity Strategy

The Dorset Biodiversity Partnership (listed earlier) is a group of organisations brought together by a common aim to reverse the decline of biodiversity in Dorset through positive, collaborative action. The Dorset Biodiversity Strategy has been prepared by the Partnership through wide consultation, to provide a strategic framework for action over the next 10 years that contributes to achieving the targets set out in the UK BAP. The production of such a document is essential to help direct and co-ordinate initiatives that will conserve and enhance Dorset's biodiversity. Key principles for biodiversity conservation that will underpin the Strategy are listed in fig. 1.

The Strategy is part of a local biodiversity process with functions that aim to:

- ensure that national targets for species and habitats, as specified in the UK BAP, are translated into effective action at the local level.
- identify targets for species and habitats appropriate to the local area, and reflecting the values of people locally.
- develop effective local partnerships to ensure that programmes for biodiversity conservation are maintained in the long term.
- raise awareness of the need for biodiversity conservation in the local context.
- ensure that opportunities for conservation and enhancement of the whole biodiversity resource are fully considered.
- provide a basis for monitoring progress in biodiversity conservation, at both local and national level.



Early on in the process the Dorset Biodiversity Partnership took a decision to produce a concise strategy capturing key actions. This decision was taken to maintain the momentum for action that had built up within the partnership through the implementation of 13 species and habitat projects between 1998 and 2002 (see Table 2).

The strategy captures key actions through Topics; Forestry and Woodland Management, Agriculture, Freshwater Management, Marine and Coastal Issues (chapter 2), and Common Themes; Raising Awareness and Involvement, Data and Information, Land-use Planning (chapter 3).

Chapter 4 outlines ways in which the Strategy will be implemented; through partnership work, appropriate funding, and monitoring and review.

An audit of Dorset's biodiversity

The Dorset Biodiversity Audit, first published in 1997, has been revised and updated to complement this document by providing accompanying information on priority habitats and species. It is available as a publication, or on the Dorset Environmental Record Centre website (www.derc.org.uk).

1.3 Links with wider plans and policies

Landscape Scale Initiatives

There is increasing emphasis on the need for the provision of biodiversity at the landscape scale, to address issues of fragmentation, and the long term viability of wildlife populations, especially in relation to the effects of climate change. Current landscape scale initiatives include; English Nature's Lifescapes Programme, RSPB's Futurescapes and the South West Wildlife Trust's Rebuilding Biodiversity Project.

This Strategy advocates the need for large areas for wildlife to be identified and created through a landscape scale planning process.

Fig.1

Key Biodiversity Principles

In order to enhance the overall ecological quality, extent, capacity, structure and functioning of the ecological network the following principles should be followed:

- **Manage** existing, restored, enhanced, and newly created habitats of importance for wildlife.
- **Avoid** changing land-use of sites where this would;
 - directly affect the habitat resulting in a reduction or loss of habitat quality and species present.
 - indirectly impact on surrounding habitats
 - lead to further fragmentation of semi natural habitat.
- **Restore** and, where possible, buffer, link, connect and extend habitats of importance to wildlife. Examples include; corridors (e.g. hedges), or 'stepping stones' (e.g. ponds and small woods), through which species can move, to create a habitat matrix essential to many species;
 - help protect special sites by creating buffer zones to guard against threats such as pollution or changes in water level
 - create large areas for wildlife, where nature conservation is the primary objective
 - target effort around key areas e.g. designated sites/ Sites of Nature Conservation Importance, and areas which link and buffer these sites.
- **Monitor** existing, restored, enhanced and newly created habitats of importance for wildlife to ensure;
 - policies/ activities are effective, and adjusted if not
 - the Strategy adapts to changing circumstances
 - existing wildlife interest is not neglected in favour of new projects
 - data are gathered, collated and disseminated to maintain and enhance our knowledge of Dorset's wildlife.

Other county plans and initiatives

It is important that the Dorset Biodiversity Strategy is integrated into the work of initiatives that have an influence on biodiversity conservation. Wherever possible groups or organisations leading on the following initiatives were involved in producing the Strategy.

- AONB Management Plan
- Community Strategies (through the Dorset Strategic Partnership)
- Sites of Nature Conservation Importance (SNCI) Project
- Dorset Coast Strategy
- Local Authority Development Plans
- Environment Agency Local Contribution Plans
- Environmental Land Management Schemes
- English Nature Natural Area Profiles
- Local Agenda 21
- Purbeck Heritage Strategy
- National Trust Management Plans
- Shoreline Management Plans
- Poole Harbour Aquatic Management Plan
- Dorset County Council's Working for Wildlife (Local Nature Reserve) Project

The Dorset Biodiversity Strategy aims to simplify the operation of biodiversity conservation in Dorset by facilitating county-wide co-ordination of both policy and action.

Other biodiversity action plans (BAPs)

A jigsaw of regional and local biodiversity initiatives has developed across the country. This has led to some confusion over how individual initiatives relate to one another. It is important to realise that all these plans are collectively working towards the targets in the UK BAP, but at different scales or locations.

Other BAPs relating to Dorset are;

- *Action for Biodiversity in the South-West: A Series of Habitat and Species Action Plans to Guide Delivery (1998)*. This assists BAP initiatives in the South West to match their priorities with each other, and with those in the national guidance.
- *A Local Biodiversity Action Plan for Purbeck, (1997)*. Purbeck was chosen, as an area of high biodiversity importance, to pilot production of a district-level BAP. Priorities set out in the Dorset Biodiversity Strategy should inform future reviews of the Plan. The Purbeck Biodiversity Officer post has proved invaluable in implementing action set out in the plan.
- Neighbouring Local BAPs – the neighbouring counties of Hampshire, Somerset, Devon and Wiltshire all have their own biodiversity action plans.
- Biodiversity Action Plans produced by individual organisations, to implement their BAP priorities e.g. Wessex Water BAP, Butterfly Conservation action plan for the South-Central Region.

In the future other BAPs may be produced for smaller geographical areas within Dorset, e.g. by District Councils or businesses. It is important that these should be guided by the priorities set out in this strategy, for consistency within the county. The Biodiversity Partnership will provide guidance and support to individual organisations wishing to develop a BAP to cover their own area of activity.

1.4 Selecting priority habitats and species

Habitats

The UK Biodiversity Group has divided the whole land surface of the country and the surrounding seas into 27 broad habitat types. Dorset contains 21 of the UK's 27 broad habitat types, and together these cover the entire land area within the county. At the UK level, 45 more narrowly defined 'priority habitats' have been singled out. For each of these a costed habitat action plan (HAP) has been prepared under the UK Biodiversity Programme.

UK priority habitats were selected using one or more of the following criteria:

- habitats for which the UK has international obligations;
- habitats at risk, such as those which are rare or have a high rate of recent decline;
- habitats which are functionally important for species inhabiting wider environments;
- habitats important for species of particular conservation concern.

Of the 45 UK priority habitats 32 occur in Dorset. These are listed in Table 1. In accordance with the national process these habitats are the focus for action in the Dorset Strategy. In addition to these, using similar criteria as above, the Dorset Biodiversity Partnership has selected ponds, valley mires and the marine habitats brittlestar beds and *Mytilus edulis* beds as local priority habitats.

Based on data available for SSSIs and SNCIs, priority habitats represent approximately 12 % of the county. This figure excludes the area of priority marine habitat, which has not yet been fully determined. Together, they represent Dorset's critical natural assets.

Species

The UK Biodiversity Programme has identified 1288 'species of conservation concern'. Of these, over 560 species of particular concern have been selected as 'priority species', which are those most in need of conservation action; 33% of these species occur in Dorset. Species Action Plans (SAPs) or statements have been prepared for all priority species in the UK. These plans set targets and a broad framework for action, and to be effective they must be translated into a more local context.

The Dorset Biodiversity Audit (DERC 2003) identifies species of concern and highlights which of these are UK priority species. In consultation with local experts and specialist groups local priority species were identified based on local threat, decline, rarity and the significance of the local population. The conservation requirements of the local and national priority species, and the species of conservation concern should be taken into account when undertaking habitat level conservation.

Several species are either extinct or possibly extinct in the county. However, it is important to take account of those species once occurring in Dorset that have disappeared. Where these species persist elsewhere they may return of their own accord if conditions are suitable.

Table 1 Occurrence of UK Priority Habitats in Dorset

UK Broad Habitat Type	UK Priority Habitat	Dorset Priority Habitat
Broadleaved, mixed and yew woodland	Upland mixed ash woodland Upland oak woodland Lowland beech and Yew Lowland woodpasture & parkland Lowland mixed deciduous woodland (UK action plan in 2003) Wet woodland	✓ ✓ ✓ ✓
Coniferous woodland	Native pine woods	
Boundary & linear features	Ancient &/or species rich hedgerows	✓
Arable and horticulture	Cereal field margins	✓ (Arable land)
Improved grassland	Coastal & floodplain grazing marsh	✓
Neutral grassland	Lowland meadows Upland hay meadows	✓
Calcareous grassland	Lowland calcareous grassland Upland calcareous grassland	✓
Acid grassland	Lowland dry acid grassland	✓
Bracken		
Dwarf shrub heath	Lowland heathland	✓
Fen, marsh & swamp	Purple moor grass & rush pastures Fens Reedbeds	✓ ✓ ✓
Bogs		
Standing open water & canals	Eutrophic standing waters Mesotrophic standing waters Aquifer fed naturally fluctuating water bodies	✓
Rivers and streams	Chalk streams	✓
Montane habitats		
Inland rock	Limestone pavements	
Built up areas and gardens		
Supra littoral rock	Maritime cliff and slope	✓
Supra littoral sediment	Coastal vegetated shingle Coastal sand dunes Machair	✓ ✓
Littoral rock	Littoral chalk Sabellaria alveolata reefs	✓ ✓
Littoral sediment	Coastal saltmarsh Mudflats Sheltered muddy gravels Seagrass beds (<i>Z. noltii</i>)	✓ ✓ ✓
Inshore sublittoral rock	Tidal rapids Sublittoral chalk Sabellaria spinulosa reefs <i>Modiolus modiolus</i> beds	✓ ✓ ✓
Inshore sublittoral sediment	Saline lagoons Seagrass beds (<i>Z. marina</i>) Mud in deep water Maerl beds Serpulid reefs Sublittoral sands & gravels	✓ ✓ ✓ ✓ ✓
Offshore shelf rock		
Offshore shelf sediment		
Continental shelf slope	<i>Lophelia pertusa</i> reefs	
Oceanic seas		
	Local Priority Habitats Ponds Valley Mires Brittlestar beds <i>Mytilus edulis</i>	✓ ✓ ✓ ✓

NB Dorset priority habitats in **bold**

1.5 Next steps to be taken as part of the local biodiversity process

To fulfil all of the functions set out in section 1.2, further steps in the local biodiversity process will need to be taken.

Preparation of selected Habitat Action Plans

In preparing this strategy, it became obvious that some habitats would require more comprehensive action plans to take forward joint action.

The habitats selected by the Partnership for Habitat Action Plans are:

- Ponds – there is currently no national action plan for this habitat, upon which local action could be guided; also discussions on who would take forward some of the key actions in the habitat statement were not resolved.
- Lowland heathland – Dorset holds a significant proportion of the UK resource of this habitat. Many projects are currently underway, but a Habitat Action Plan would pull this all together.
- Wood pasture, parkland and ancient trees – the issues affecting this habitat are complex and varied.
- Selected marine habitats – not enough is currently known about marine habitats. The Dorset Biodiversity Partnership, in liaison with experts, will identify the need for Habitat Action Plans once the extent, condition/ threats are better known.

Target dates will be set for the production of each Habitat Action Plan. They will be prepared through extensive consultation with local and national experts, and co-ordinated by the Dorset Biodiversity Co-ordinator. The opportunity will be open to all partners to be involved in the preparation of any plan.

Each plan will follow a standard format, ensuring a consistent approach with national plans. Liaison will also be undertaken with biodiversity action planning initiatives of neighbouring counties.

For some Dorset habitats, action plans or initiatives already exist (see table 2). In addition action has been undertaken through national programmes implemented locally, aimed at achieving the UK BAP targets.

Preparation of selected Species Action Plans

Conservation action for most priority species can be dealt with through action at a habitat level. The majority of species will benefit from positive habitat management and will be well catered for by this approach. However, in some cases such action alone will be inadequate. Specific action will be needed where one of the following criteria applies:

- the species is so highly threatened, or rapidly declining, that urgent action must be taken to prevent local extinctions;
- the species, although restricted to a particular habitat type, has specific ecological requirements that fall outside of normal habitat management.

Dorset priority species that fit either of these categories may require local Species Action Plans, in addition to the UK Species Action Plans. In some cases, it may be appropriate to have an action plan for a group of species. These will be prepared in the same way as the Habitat Action Plans.

Where priority species are widespread, found in a range of different habitats and will be very difficult to conserve through general habitat work, the most effective approach is through national action, where policy change is usually the key to biodiversity conservation.

Table 3 lists species action plans or initiatives that already exist in Dorset. This may not preclude the need for a Dorset Action Plan where it is felt there would be benefit in an updated, or county level, plan.

Table 2 Dorset habitats with existing local/regional targets			
Habitat	SW Regional BAP	Purbeck BAP	Dorset Biodiversity Project 1998-2002
Lowland mixed deciduous woodland	✓ (Ash-Maple woodland)	✓	
Wood pasture & parkland	✓	✓	✓ (Veteran Trees)
Species-rich hedgerows	✓		
Cereal field margins	✓	✓	✓ (Farmland)
Coastal & floodplain grazing marsh	✓	✓	✓
Lowland meadows	✓		
Calcareous grassland*	✓	✓	
Heathland*	✓	✓	
Fens			✓
Reedbeds	✓	✓	
Chalk streams	✓ (Rivers and streams)	✓ (Rivers)	
Urban habitat	✓		✓ (Urban watercourses)
Maritime cliff and slope	✓	✓	
Coastal sand dunes	✓		
Seagrass beds	✓		✓
Maerl beds		✓	✓
Sublittoral chalk	✓ (Rocky seabed)		

* Butterfly Conservation South Central Regional Action Plan

Measuring achievement

Monitoring progress and measuring success is a vital part of the biodiversity process.

Chapter 3: Data and Monitoring, recommends that a biodiversity monitoring strategy is devised for the county.

Headline Indicators

The England Biodiversity Strategy (DEFRA 2002), has adopted Headline Indicators for each key economic sector. These include the Governments Quality of Life Counts (DETR 1999), indicators particularly important for biodiversity.

A selection of these indicators are suggested in this strategy within each topic section, to tie in to the national process. It should be possible to extract local information from the data that are gathered nationally by DEFRA to monitor change in Dorset through these indicators.

Targets

As part of the UK Biodiversity Action Plan quantified, biological, time limited targets have been agreed for all priority habitats and species. To measure Dorset's contribution to these, local targets will be set for the following:

- the maintenance, restoration and re-creation of habitats;
- the protection and enhancement of species selected for local Species Action Plans.

Apportioning national targets to a more local level has already been undertaken through English Nature's Natural Area Framework. Natural Areas are defined as 'biogeographic zones which reflect the geological foundation, the natural systems and processes and the wildlife in different parts of England'. UK BAP targets have been apportioned for the eight Natural Areas which cover Dorset and its marine habitats (see Appendix D). These can be used as a basis for establishing appropriate targets for Dorset.

Table 3 Priority species with existing plans or initiatives in Dorset

	Species action that has been generated nationally	SW Regional BAP	Purbeck BAP	Dorset Biodiversity Project (1998-2001)
Lower plants and fungi				
Nail fungus			✓	
Churchyard lichen			✓	
Golden-hair lichen <i>Teloschistes flavicans</i>			✓	
Thatch moss <i>Leptodontium gemmascens</i>			✓	
Marsh clubmoss <i>Lycopodiella inundata</i>			✓	
A moss <i>Habrodon perpusillis</i>			✓	
Vascular plants				
Acid-loving plants				✓
Lizard orchid			✓	
Early gentian		✓		
Pillwort	✓			
Invertebrates				
Bog ant <i>Formica candida</i>	✓			
Heath tiger beetle <i>Cicindela verrucivorus</i>	✓			
Fairy shrimp			✓	
Southern damselfly	✓		✓	✓
Pearl bordered fritillary*				✓
Speckled footman moth*			✓	✓
A micro moth <i>Eudarcia richarsoni</i>			✓	
Reed leopard moth*			✓	
Spider hunting wasp	✓			
Purbeck mason wasp	✓			
Hornet robber fly <i>Asilus crabroniformis</i>			✓	
Mottled bee-fly <i>Thyridanthrax fenestratus</i>	✓			
Heath bee-fly <i>Bombylius minor</i>	✓			
A weevil <i>Cathormiocerus britannicus</i>			✓	
A water beetle <i>Graphoderus cinerus</i>			✓	
Wart-biter bush cricket	✓			
A spider <i>Enoplognatha tecta</i>			✓	
Ladybird spider	✓			
Pink sea fan		✓		✓
White-clawed crayfish		✓		
Also Environment Agency 'South Wessex white clawed crayfish BAP'				
Vertebrates				
Great crested newt		✓	✓	✓
Sand lizard	✓	✓	✓	
Nightjar		✓		
Little tern		✓ (sea birds)		✓
Otter	✓			
Water vole	✓	✓		
Pipistrelle bat		✓		
Harbour porpoise		✓		

* Butterfly Conservation South Central Regional Action Plan

Monitoring actions within common themes

As well as monitoring against targets established for habitats and species, as described above, the actions set out in Chapter 3 for common themes will also be monitored to measure progress on generic action.

Summary of next steps to be taken by the Dorset Biodiversity Partnership	When by:
1 Prepare action plans for the selected priority habitats and species and follow through with programmes of implementation and monitoring.	All plans to be published by end 2004
2 Using the selected criteria, identify which priority species require action plans.	End 2003
3 Set local targets for priority habitats, using the Natural Area targets as a baseline.	End of 2003

2 PROGRAMMES OF ACTION FOR TOPICS AND HABITATS



2.1 Introduction

Topic Action Plans

Threats to biodiversity and the constraints to achieving conservation goals are identified in the UK BAP and the England Biodiversity Strategy. Many of these arise from overarching issues relating to the current use of land, air and water, and our systems for regulating this use. Lobbying government to change the policy framework governing land use is an essential part of the biodiversity planning process, and is being undertaken mainly at a national and regional level. The role of the Dorset Biodiversity Strategy is to seek solutions to these issues, where possible within the existing policy framework.





This part of the strategy seeks to integrate biodiversity conservation into the key economic sectors that most influence it. The topic areas of forestry, agriculture, freshwater management, and coastal and marine issues are reviewed, and programmes of action set out for each in Topic Action Plans.

It is hoped that this approach will help integrate concern for biodiversity in other cross-sector initiatives, such as the AONB Management Plans and forthcoming Community Strategies.

Habitat Statements

Habitats Statements have been developed for the following habitats, grouped under the sector that most affects them:

Forestry and Woodland Management

- Lowland mixed deciduous woodland
- Wet woodland
- Beech and yew

Agriculture

- Lowland meadows
- Purple moor grass and rush pasture
- Lowland calcareous grassland
- Lowland dry acid grassland
- Ancient &/or species rich hedgerows
- Arable land
- Ponds

Freshwater Management

- Coastal and floodplain grazing marsh
- Chalk streams
- Reedbeds
- Fens

Coastal and Marine Issues

- Coastal habitats (Group Statement)
- Marine habitats (Group Statement)

A Habitat Statement has not been prepared for Eutrophic standing waters (lakes and reservoirs) due to the small amount of this habitat in the county. A Habitat Statement has not been prepared for Valley Mires, although this is a local priority habitat



Powerstock Common by Tony Bates

The following habitats do not appear within a Topic. Although affected by agriculture and forestry the specific issues are unique. These habitats therefore appear in separate sections; 2.6 and 2.7.

- Lowland wood pasture, parkland and veteran trees.
- Lowland heathland.

There is inevitably some overlap and inter-relationship between the topics and habitats. For example, coastal and floodplain grazing marsh is affected by both agricultural and freshwater management issues. As far as possible these overlaps are identified within each Topic Action Plan. Table 4 provides a quick reference for where this inter-relationship occurs.

Each habitat is affected by the generic issues and actions within the relevant Topic Action Plan, and therefore Habitat Statements should not be read in isolation.

Prioritising habitat action

This strategy does not prioritise which habitats require the most urgent action, as threats and opportunities are often on a site by site basis. However, each Habitat Statement provides information on the overall status of the habitat in Dorset. Depending on the criteria applied, habitats can be prioritised by their decline rate, rarity, lack of knowledge of the resource, the potential to extend/link habitats etc.

Table 4 The relationship between priority habitats and the sectors that affect them				
Habitats	Forestry	Agriculture	Freshwater management	Marine and Coastal issues
Lowland mixed deciduous woodland	3			
Beech and yew woodland	3			
Wet woodland	3		3	
Lowland wood pasture and parkland	3	3		
Ancient &/or species rich hedgerows		3		
Arable land		3		
Coastal & floodplain grazing marsh		3	3	
Lowland meadows		3		
Lowland calcareous grassland		3		
Lowland dry acid grassland		3		
Lowland heathland	3	3		
Purple moor and rush pastures		3	3	
Fens	3	3		
Reedbeds			3	3
Ponds	3	3		
Chalk streams		3	3	
Maritime cliff and slope		3		3
Coastal vegetated shingle				3
Coastal sand dunes				3
Littoral chalk				3
Coastal saltmarsh			3	3
Mudflats				3
Sheltered muddy gravels				3
Marine :			3	3
Maerl beds				
Mud in deep water				
<i>Sabellaria spinulosa</i> reefs				
Sublittoral sands and gravels				
Sublittoral chalk				
Tidal rapids				
Saline lagoons				
Seagrass beds				
Brittlestar beds				
<i>Mytilus edulis</i> beds				

2.2 TOPIC ACTION PLAN:

Forestry and Woodland Management



Introduction

Forests and woodlands are quintessential features of the Dorset landscape supporting a wealth of biodiversity, including a high proportion of BAP species. Woods and forests can provide a renewable source of materials and energy, as well as a range of environmental and social benefits. They can have an important role in protecting water catchments and in floodplain management.

In the past, commercial restocking using conifers and in some cases non-native broadleaves was severely impacting upon ancient woodland sites. However, with increased awareness and changes in national policy, this is less of a threat. This legacy presents new challenges as the natural and cultural value of ancient woods is accepted and their restoration to native broadleaves is now a priority. The biodiversity of Dorset's woodlands is the result of wildlife adapting to generations of past management practices. The future of woodland biodiversity is therefore intrinsically linked to its continuing management but this may need new direction.

The key issues are climate change and the need for carbon sequestration, rising deer numbers, isolation, fragmentation and the place of woods and wood products in the present and future economy and landscape. The world market influences timber prices, imports and changes peoples' expectations of wood which has to compete with man made materials. We need to continue growing and planting conifer for high quality timber and combine this with social benefits. Many plantations could be restructured and species and habitat diversity improved.

The England Forestry Strategy includes biodiversity and socio-economic benefits as significant elements of its key programmes towards multi-purpose forestry. The UK Woodland Assurance Scheme (UKWAS) has similar requirements for Forestry Stewardship Council (FSC) certification. The Woodland Grant Scheme, is the principal funding stream for delivering these benefits in Dorset.

The forecast of a continued decline in the price for timber and wood products has reduced the economic viability of forestry enterprises based on low quality softwood and high restocking costs and thereby management activity for biodiversity.

Dorset has a legacy of plantations on heathlands and wetlands of high conservation value, much of this in public sector ownership. Their removal to recreate open ground of high nature conservation value is accepted but there is a requirement to replace some of the forest cover with new planting delivering environmental and socio-economic benefits.

Vision for woodland and forestry (from the 'England Biodiversity Strategy' DEFRA 2002)

'Woodland and forests that are being managed and extended in a manner that enhances both woodland and non-woodland species and habitats, and at the same time are providing a wide range of sustainable goods, environmental services and recreational benefits which enhance people's quality of life.'

Aims

- To conserve the biodiversity of semi-natural woodlands, particularly ancient semi-natural woodland.
- To enhance, extend and restore the existing native woodland resource.

Impacts

- Loss of woodland
- Woodlands in the wrong place – i.e. the historical legacy of planting on heathland or unimproved grassland
- Relationship with the agricultural sector – increase in intensive farming and incentives over the last 50 years has left little opportunity for the development of woodlands in the farmed landscape.
- Economic downturn in timber and wood products markets
- Lack of, or inappropriate, management, or neglect leading to change in internal structure and diversity
- Fragmentation and isolation of semi-natural woodlands
- Wrong type of woods – i.e. past conversion to conifer and non-native species
- Damage/ colonisation by invasive alien species and pest species
- Not enough knowledge of the Dorset resource
- Low level of awareness by the public and conservation/forestry sector of the link between woodlands and wood products.

The following table recommends key actions to address these impacts.

Suggested Headline Indicators

- Condition of woodland SSSIs and SNCIs
- Progress towards Dorset woodland habitat targets (to be determined)
- Area of ancient woodland under an approved management scheme
- Area of native woodland created
- Area of new mixed forests established, delivering environmental and socio-economic benefits.
- Improved status of woodland birds (Quality of Life Indicator)
- Total area of woodland under active management
- Area of plantations on ancient woodland sites.

FORESTRY AND WOODLAND MANAGEMENT

Impacts	Current action	Evaluation	Recommended action	Potential partners
Policy and legislation				
Loss of woodlands	<p>Application of legislation e.g. EU Habitats Directive, CRoW Act 2000, Tree Preservation Orders, Felling licences</p> <p>Identification and notification of woodlands as SSSI and Site of Nature Conservation Importance (SNCI)</p>	<p>CRoW Act has provided a resource stream to EN to deliver favourable management for SSSIs by 2010</p> <p>Only gives limited protection for SNCIs through the planning system, but targets management advice</p>	<ol style="list-style-type: none"> 1. Complete and publish review of ancient woodland inventory. 2. Lobby for Planning Policy Guidance (PPGs) for woods and trees, or stronger policies in existing PPGs for ancient woodland. 3. Lobby to de-couple delivery of forest policy from grant and licensing system. 	<p>EN</p> <p>EN, WT</p> <p>EN, WT</p>
Woodlands in wrong place – i.e historical legacy of planting on heathland	<p>Tomorrow's Heathland Heritage Programme restoring 1000ha of heath by removal of conifers</p> <p>ESA grants used to clear plantations from some downland sites</p>	<p>There are insufficient mechanisms to deal with removal of plantations on former grassland sites (prior to the canopy closing)</p>	<ol style="list-style-type: none"> 4. Develop criteria to guide the compensatory planting of broadleaved and conifer woodland, in line with the phased reduction of conifers on heaths. 	FE, Dorset AONB
Relationship with agricultural sector – i.e woodland incentives can't compete	<p>Agri-Environment Scheme Review underway.</p> <p>National review of Woodland Grant Scheme and Farm Woodland Premium Scheme underway</p>	<p>Revised agri-environment schemes likely to incorporate woodland / forestry issues in some way. Being developed nationally.</p> <p>Review may increase funds for managing existing woodland. Devolution of FC will allow regional targeting of grants</p>	<ol style="list-style-type: none"> 5. Develop guidelines for landowners, rural land advisors and planners in order to guide new woodland planting to maximise biodiversity gain. 6. Ensure structure and implementation of new scheme achieves wildlife benefits. 	<p>Dorset AONB, EN, FC</p> <p>FC</p>
Management				
Economic downturn in wood products markets	<p>UK Woodland Assurance Scheme (UKWAS) certification and Forestry Stewardship Council (FSC) labelling scheme</p> <p>Dorset Coppice Group – directory of coppice workers and products</p> <p>Local processing and marketing schemes</p> <p>'Eco-lots' – a directory for woodland and forestry.</p> <p>West Dorset District Council and Poole Borough Council bid for a wood fuel energy plant</p>	<p>Too expensive for small woods</p>	<ol style="list-style-type: none"> 7. In liaison with surrounding counties, produce a 'wood products and marketing strategy' with the aim of creating a market for sustainable woodland produce. Include recommendations of how the FSC labelling scheme can be encouraged in Dorset. 8. Investigate the potential for extending the Farmers Market initiative to include local wood products. 	<p>Woodland Forum</p> <p>Woodland Forum</p>

FORESTRY AND WOODLAND MANAGEMENT

Management cont . . .

Economic downturn in wood products markets cont . . .	England Rural Development Plan (ERDP) schemes for the development of new products and markets LEADER+ Grant	(see previous page)	(see previous page)	(see previous page)
Lack of, or inappropriate management	<p>Management Grants available (e.g. Woodland Grant Scheme)</p> <p>LEADER+ Grant has the potential to benefit woodland management in west Dorset.</p> <p>Land management advice projects</p> <p>FWAG Whole Farm Plans</p> <p>English Nature Demonstration Sites</p>	<p>Advice to landowners, and help with grant applications is crucial. FC only have the resources to be reactive. Proactive targeted advice is most effective. Purbeck Biodiversity Project is seen as an effective model to emulate across other areas of Dorset, but has yet to tackle woodlands</p> <p>More joined up working would enable advisors to utilise the knowledge and experiences of others, and increase links to other sustainable initiatives e.g. farm business advice</p> <p>There may be a lack of awareness among landowners of the advisory services available to them</p>	<p>9. Building on the model of the Purbeck Biodiversity Project, seek funding for landowner liaison work to cover other appropriate areas of Dorset.</p> <p>10. Develop a county-wide Advisor Forum to co-ordinate and target approaches to landowners in a strategic way.</p> <p>11. Through the Forum, develop an advisor network, to promote consistency of advice while offering a single point of contact for a landowner.</p> <p>12. Through the Forum, increase the profile and reputation of the advisory service, through marketing initiatives etc.</p>	<p>Dorset AONB, LA's</p> <p>Dorset AONB, LA's</p> <p>Dorset AONB, Purbeck BAP, LA's</p> <p>Dorset AONB, Purbeck BAP, LA's</p>
<p>Woods too small – fragmentation and isolation</p> <p>(continued overleaf)</p>	<p>Woodland creation grants available (e.g. Woodland Grant Scheme, Farm Woodland Premium Scheme)</p>	<p>Pilot 'WGS Jigsaw Grant Scheme' targeted at linking ancient woodlands, expected to be rolled out across the country soon.</p>	<p>13. Ensure the 'compensatory planting criteria' (see action 4 above) prioritises de-fragmentation of semi-natural woods, in particular ancient semi-natural woodland.</p> <p>14. Identify broad target areas for woodland planting, prioritising links and buffers to ancient woodland sites, based on Woodland Trust research.</p> <p>14a. Encourage landowners in identified areas to maintain, restore and link semi-natural woodland.</p>	<p>Dorset Woodland Forum</p> <p>EN, FC Dorset AONB, LA's, WT</p>

FORESTRY AND WOODLAND MANAGEMENT

Impacts	Current action	Evaluation	Recommended action	Potential partners
Management cont . . .				
Wrong types of woods – e.g. past conversion to conifer and non native species.	Management Grants available (e.g. Woodland Grant Scheme) Forest Enterprise 'Forest Design Plans' Purbeck survey of Planted Ancient Woodlands Small scale SSSI restoration Woodland Trust/ English Nature research into restoration techniques Ongoing removal of conifer on some sites		15. Establish best practice demonstration sites for restoration of replanted ancient woods, continuous cover forestry, high forest management, sustainable game management, and coppice management, based on Natural Areas (a landscape scale approach).	Dorset Woodland Forum,
Damage caused by pest species	Ad-hoc control by site managers Through the Deer Initiative, deer management groups are being established, e.g. Purbeck Basin Deer Management Group Sika deer population in Purbeck being managed through an annual cull. Also research undertaken into the effects of Sika deer grazing pressure, and research on population dynamics	Effectiveness of current action not known Nearest Deer Initiative Officer is based in Salisbury, which affects the level of support available in West Dorset.	16. Review effectiveness of current activity, and recommend further action required. 17. Explore opportunities for venison markets, through LEADER + and Dorset Food Links. 18. Seek funds for a study into the economic and environmental implications of deer damage. 19. Raise awareness amongst landowners of deer management issues through advisory visits, demonstration sites, venison products marketing etc.	EN, FE Dorset Woodland Forum Dorset Woodland Forum EN, DWT, Purbeck BAP, NT, FC
Colonisation by invasive plants	Targeted removal on designated sites, and some other sites. Woodland Improvement Grant		20. Offer advice to landowners on control of invasive plants as part of an advice service looking at a whole farm/ land unit approach. 21. Facilitate co-ordination between neighbours to deal with large-scale infestations.	FWAG, DWT, Purbeck BAP, NT
Research and monitoring				
Not enough knowledge of the status of the Dorset resource	EN monitoring tool 'Guidelines on Condition Assessments' published Dorset Ancient Woodland Inventory update Dataset available from DERC on woodland owner types for Dorset woodlands		22. Establish a methodology for assessment of SNCI woodlands and other sites, based on parameters used for SSSI assessments.	DERC, DWT, EN

FORESTRY AND WOODLAND MANAGEMENT

Education and awareness			
Low level of public awareness of the link between woodlands and wood products	UK Woodland Assurance Scheme (UKWAS) certification and Forestry Stewardship Council (FSC) labelling scheme FC initiatives EN 'In Praise of Trees' initiative		23.Ensure local woodland products are part of a wider agricultural initiative to 'reconnect people with the countryside'.
<p>Prepared in consultation with:</p> <p>Butterfly Conservation Dorset Branch, Dorset AONB, Dorset Wildlife Trust, English Nature, Forestry Commission, Forest Enterprise, Purbeck Biodiversity Project, Woodland Trust.</p> <p>Key to abbreviations:</p> <p>DERC – Dorset Environmental Record Centre DWT – Dorset Wildlife Trust, Dorset AONB – Dorset Area of Outstanding Natural Beauty EN – English Nature FC – Forestry Commission FE – Forest Enterprise, FWAG – Farming and Wildlife Advisory Group LAs – Local Authorities NT – National Trust WT – Woodland Trust</p>			
			FE, Dorset AONB, EN, LA's



2.2.1 LOWLAND MIXED DECIDUOUS WOODLAND

National Lead Partner: Forestry Commission

Habitat description

This is a large habitat category that incorporates most of the semi-natural woodland in Dorset. Categories include:

- Ancient semi-natural woods (semi-natural stands on ancient sites)
- Other semi-natural woods (semi-natural stands on more recent woodland sites)

It does not include wet woodland or beech and yew woodlands, which both have their own UK Habitat Action Plan. For the purposes of this Habitat Statement, planted ancient woodland is included.

Lowland mixed deciduous woodland in Dorset consists mainly of small farm woodlands which have been traditionally managed as coppice-with-standards. The main focus of woodland conservation effort in Dorset is on ancient woodlands, since these are generally the richest in wildlife. The days when ancient woodland was converted to conifer plantations are now gone.

Habitat status criteria	Dorset status
UK Priority habitat	✓
SAC/SPA interest feature in Dorset	✓ (Brackett's Coppice)
Important for UK BAP species	✓
Local decline	Mainly in the 50s and 60s
Proportion of UK habitat in Dorset	Modest
Local threat	Direct
Local rarity	Scarce
Potential to extend/ link habitat fragments	High
Survey priority	Medium

Key at Appendix C

Specific Impacts

The impacts and actions for this habitat are captured within the Forestry and Woodland Management Table. Therefore no separate plan has been prepared.

Objectives

- 1 Maintain the extent and quality of the existing resource, through appropriate management, prioritising ancient woodland.
- 2 Restore ancient woodland sites which have been planted with, or colonised by non-native species, prioritising sites with the best native flora left.
- 3 Increase the area of native woodland in Dorset, through natural regeneration and planting, targeting links between existing woodlands or other semi-natural habitats, and where this does not conflict with existing wildlife, landscape and archaeological interests.
- 4 Manage for ancient trees and dead wood habitat in woodland sites.
- 5 Continue to conduct research and monitoring which will add to our knowledge and understanding of woodland habitats and species, their distribution and management.
- 6 Provide opportunities for education, access and awareness raising initiatives in appropriate woodland sites.

Natural Area Targets: there are no Natural Area targets set for this habitat

2.2.2 WET WOODLAND

National Lead Partner: Forestry Commission

Habitat description

These woodlands have formed on seasonally or permanently water-logged soils, and have a canopy often dominated by Alder, Downy Birch and Willow species. Two areas of the county are particularly important:

- 1 The floodplains of rivers in the Dorset Heaths Natural Area.
- 2 Springlines and seepages in the Wessex Vales Natural Area.

Wet woodland includes both ancient and more recent stands, both of which are of high conservation importance. This habitat may be found in conjunction with fen and swamp habitats.

Habitat status criteria	Dorset status
UK Priority habitat	✓
SAC/SPA interest feature in Dorset	✓
Important for UK BAP species	✓
Local decline	Stable
Proportion of UK habitat in Dorset	Modest
Local threat	Direct
Local rarity	Rare
Potential to extend/ link habitat fragments	Medium
Survey priority	High

Key at Appendix C

Specific Impacts

(The impacts and actions for type 1 wet woods are mainly captured within the Freshwater Management Table at 2.4. Similarly, for type 2 wet woods see the Forestry and Woodland Management Table at 2.2.)

- River management - bankside clearance of trees etc.

Objectives

- 1 Maintain the extent and quality of existing habitat, through appropriate management.
- 2 Restore existing wet woodlands that have become degraded.
- 3 Increase the area of native wet woodland in Dorset, primarily through natural regeneration. Expansion should include networks of riparian woodlands linking existing wet woodlands and other woodland types, where this does not conflict with other biodiversity interests.
- 4 Continue to conduct research and monitoring which will add to our knowledge and understanding of woodland habitats and species, their distribution and management.
- 5 Raise the profile of the value and importance of wet woodland to the biodiversity of Dorset.

Natural Area Targets: see appendix D

Impacts	Current action	Evaluation	Recommended action	Potential partners
Management				
River management -bankside clearance of trees etc	Some flood defence works involve removal of fallen trees, debris dams etc.	Non routine works are screened for biodiversity impact by EA. Routine works are not. Therefore unclear of overall impact.	Identify important wet woodland sites and ensure that routine flood defence works do not adversely impact on these sites.	Environment Agency





2.2.3 LOWLAND BEECH AND YEW WOODLAND

National Lead Partner: Forestry Commission

Habitat description

These woodlands have a restricted distribution in Dorset. Several small Yew woodlands are found on the scarp of the chalk in the north-east. Beech is on the western limit of its native distribution in Dorset, but is an important constituent of two ancient woodlands in the east of the county. Both are former wood-pasture.

Habitat status criteria	Dorset status
UK Priority habitat	✓
SAC/SPA interest feature in Dorset	
Important for UK BAP species	
Local decline	Stable
Proportion of UK habitat in Dorset	Low
Local threat	Direct
Local rarity	Rare
Potential to extend/ link habitat fragments	Medium
Survey priority	Low

Key at Appendix C

Specific Impacts

The impacts and actions for this habitat are captured within the Forestry and Woodland Management Table. Therefore no separate plan has been prepared.

Objectives

- 1 Maintain the extent and quality of existing semi-natural resource.
- 2 Restore degraded semi-natural beech and yew woodlands.
- 3 Continue to conduct research and monitoring which will add to our knowledge and understanding of woodland habitats and species, their distribution and management.
- 4 Provide opportunities for education, access and awareness raising activities.

Natural Area Targets: see Appendix D

2.3 TOPIC ACTION PLAN: Agriculture



Autumn Hedge by Mary Harold

Introduction

Approximately 73% of the land surface in Dorset is agricultural land, with the influence extending well beyond this. Farming therefore plays a pivotal role in biodiversity conservation. Dorset has a long history of traditional mixed farming, particularly arable cultivation closely linked to downland pastoral systems. Dorset's countryside has been shaped by farming activities and many semi-natural habitats now depend on the continuation of some traditional practices.

Two broad trends in agricultural change have occurred over the last 50 years – intensification and specialisation, at an individual and county level. Land previously farmed at low intensity, or not at all, has been brought into intensive use, and the intensity of farming on the existing cultivated or grazed land has increased. Many mixed farming systems have been abandoned in favour of specialist arable or livestock enterprises, and the variety of crops and livestock has been reduced. This has sometimes led to abandonment of management of traditionally grazed areas. These changes have largely been as a result of international agreements that are binding to UK agriculture policy, such as the Common Agriculture Policy (CAP) and World Trade Organisation (WTO) rules. These policies have largely favoured food production at the expense of conservation of biodiversity and protection of the landscape.

It is widely accepted that farming in Britain is at a crossroads. There is a growing demand for agricultural land to be managed to enhance the environment as well as production objectives. The key delivery mechanism for this being agri-environment schemes. This is being driven by public policy and economic opportunity to link an attractive and diverse countryside to farming activities.

There are strong links between the agriculture and freshwater management sectors, in that freshwater habitats exist in an agricultural landscape and are directly or indirectly affected by agricultural practices. These impacts are dealt with in the Freshwater Management chapter at 2.4.

A Vision for the Agricultural Sector (from 'The England Biodiversity Strategy', DEFRA 2002)

'An economically viable agriculture industry in which farmers and growers are valued for, and are able to maximise, their contribution to the conservation and enhancement of biodiversity associated with farmed and semi-natural habitats.'

Aims

- To improve the quantity and quality of biodiversity on agricultural land in Dorset
- To reduce the negative effects, and enhance the positive effects, of agriculture on the wider environment.

Impacts

- Current agricultural policy framework
- Previous agricultural intensification leading to loss, fragmentation and change of habitats
- Decline in traditional farming practices leading to unmanaged land
- Difficulty in obtaining local provenance seed for re-creation of grasslands
- Effects of antibiotics and certain worming agents.
- Lack of systematic biological monitoring of the effectiveness of conservation management on agricultural habitats.
- The availability of land management advice.

The following table recommends key actions to address these impacts.

Suggested Headline Indicators

- A reverse in the decline in the number of farmland birds by 2020
- Area of land under an agri-environment scheme
- Progress towards farmland habitat and species targets
- Condition of SSSIs and SCNIs

AGRICULTURE

Impacts	Current action	Evaluation	Recommended action	Potential partners
Policy and legislation				
Current agricultural policy framework	<p>Application of legislation: e.g. EU Habitats Directive, CRoW Act, EIA (Uncultivated Land & Semi-natural Areas) Regulations, to encourage SSSI landowners to manage towards favourable status</p> <p>Agri-environment schemes</p> <p>DEFRA Agri-environment scheme review</p> <p>Nitrate Vulnerable Zone - Farm Waste Management Scheme</p> <p>Set-aside reform</p>	<p>CRoW Act has provided a resource stream to EN to deliver favourable management for SSSIs by 2010. Also achieved through agri-environment schemes.</p> <p>Too early to assess effectiveness of EIA Regs.</p> <p>Agri-environment schemes are a key delivery mechanism, and widely available in Dorset.</p> <p>Review under way. Will include an 'entry level scheme' - may involve whole farm plans. There will continue to be a 'narrow and deep scheme'.</p> <p>Available to almost 50% of landowners in Dorset. Too new to assess effectiveness.</p> <p>Being reviewed at EU level.</p>	<p>1. Continue to use incentives and new powers under CRoW to encourage SSSI landowners to manage towards favourable status</p> <p>2. Review utilisation of grant schemes in the county to determine missed opportunities.</p> <p>3. Ensure structure and implementation of scheme achieves wildlife benefits</p> <p>(See action 6 in the Freshwater Management Table)</p>	<p>EN, DEFRA</p> <p>NFU, DWT, FWAG, RSPB, DEFRA, PHC Dorset AONB, LA's</p> <p>DEFRA, FWAG, PHC Dorset AONB, DWT</p>
Management				
Previous agricultural intensification leading to habitat loss, fragmentation and change	<p>Agri-environment schemes</p> <p>Advisory services</p> <p>Demonstration events are held at suitable locations to show best practice for e.g. hedgerow maintenance</p> <p>Habitat re-creation schemes available through agri-environment schemes</p>	<p>Offers incentives to manage land more extensively (See evaluation under raising awareness)</p> <p>One demonstration farm currently exists in Dorset to demonstrate a whole farm approach</p> <p>Need to target limited funds by taking a strategic view of areas/ sites for preservation, management, restoration, creation and joining up of matrices of semi-natural habitats in a way that will allow wildlife to thrive.</p> <p>Flora Locale working in the south west to establish supply of native seed to meet growing demand. Grant-aiding for native seed sources available under agri-environment schemes.</p>	<p>(See action 2 & 3 above)</p> <p>(See all actions under raising awareness)</p> <p>4. Identify a network of demonstration sites that will 'dovetail' into the developing national demonstration farm scheme</p> <p>5a. Identify potential areas for large-scale re-creation of semi-natural habitats through a map based consultation exercise.</p> <p>5b. Identify linking and buffering habitat creation opportunities to create mosaics of semi-natural habitat.</p> <p>5c. Set up a partnership project to implement on the ground 5a. and 5b.</p> <p>6. Establish a system (e.g database) of Dorset native seed donor and recipient sites to optimise availability for re-creation schemes</p>	<p>NFU, FWAG, DEFRA, EN, DWT, LA's, Purbeck BAP</p> <p>Through Dorset Biodiversity Partnership</p> <p>Through Dorset Bio-diversity Partnership</p> <p>NFU, DEFRA, FWAG, DWT, RSPB, LA's</p> <p>DEFRA, EN, NFU, DWT Flora Locale</p>

(continued overleaf)

AGRICULTURE

Impacts	Current action	Evaluation	Recommended action	Potential partners
Management cont ...				
Decline in traditional farming practices leading to unmanaged land	<p>Farming co-operatives are being set up all over Dorset to re-establish local food economies which can add value by exploiting local distinctiveness and sustainable farming practices.</p> <p>Agri- environment schemes</p> <p>Advisory services</p> <p>English Nature Grazing Animals Project (GAP)</p>	<p>Co-operatives being set up for economic and social reasons, but may not be considering biodiversity gains, and may therefore not be addressing the full range of sustainability issues.</p> <p>Offers incentives to bring land back into management</p> <p>(See evaluation under raising awareness)</p> <p>Dorset GAP operating on SSSIs only at present. Currently no payments for hardy breeds in Countryside Stewardship schemes. May be dealt with through agri-environment review.</p>	<p>7. Offer advice to co-operatives and individuals on how to enhance biodiversity</p> <p>(See action 2 & 3)</p> <p>(See all actions under raising awareness)</p> <p>8. Formalise Grazing Animals Project. Extend from SSSI network to roll out across Dorset.</p>	NFU, FWAG, DWT, Dorset AONB,
Difficulty in obtaining local provenance seeds for re-creation of grasslands	Research carried out through ESA officers.	Better systems and grant-aiding established for sourcing seed locally under ESA.	9. Identify where and why there are areas of unmanaged land in Dorset	NFU, DWT, FWAG, DERC, EN
Effect of antibiotics and certain worming agents.	Organic farming National Trust restrict Ivermectin on their land in Dorset.	ESA/CS prescriptions do not restrict use of veterinary products. However, DEFRA provide advice on reducing their use. Some calcareous grassland sites are registered organic.	10. Continue to research local provenance seed-sourcing, particularly as part of landscape-scale	DEFRA, EN, DWT, AONB
Research and monitoring				
Lack of systematic biological monitoring of the effectiveness of conservation management on agricultural habitats	<p>NBN SW Pilot- Inventory of priority habitats</p> <p>Agri-environment Scheme monitoring</p>	<p>Will provide baseline data. There is a need to ensure continued monitoring.</p> <p>National agri-environment scheme monitoring strategy recently developed. To be implemented locally.</p> <p>Butterfly Conservation/ DEFRA project to assess schemes via butterfly transects.</p>	11. Raise awareness of effects of these products on invertebrates and promote alternative methods/ timings of treatment.	DEFRA, EN DWT, FWAG
			12. Review current monitoring to assess effectiveness of monitoring biological outcomes of agri-environment schemes in Dorset. Implement recommendations.	DEFRA, EN, RSPB, DWT, DERC, NT, Dorset Butterfly Conservation

AGRICULTURE

Research and monitoring cont . . .				
Lack of systematic biological monitoring of the effectiveness of conservation management on agricultural habitats	(see previous page)	NBN South West Pilot contract with Rural Development Service (DEFRA) to assess the value of Local Record Centres to agri-environment scheme monitoring.	(see previous page)	
	SSSI & SNCI monitoring	SSSI Site Condition Monitoring established. No systematic method for monitoring condition of SNCIs	13.Utilise EN Site Condition Monitoring methodology for SNCI monitoring of grasslands	DWT, DERC
	National Trust land monitoring	Annual monitoring of selected fields under stewardship. Efforts concentrated in Purbeck. Resources stretched.		
Education and awareness raising				
The availability of land management advice	Advisory services provided by e.g. SNCI Project, Purbeck BAP Project, RSPB Farmland Birds Project, Agri-environment Scheme advisors, NT Advisor, FWAG, private sector.	Some co-ordination of advice to landowners currently takes place. However, a more formal arrangement would be beneficial to maintain a strategic overview of opportunities and cross-overs.	14. Building on the model of the Purbeck Biodiversity Project, seek funding for landowner liaison work to cover other appropriate areas of Dorset.	Dorset AONB, FWAG, LA's, DWT, RSPB, NFU
		More joined up working would enable advisors to utilise the knowledge and experiences of others, and increase links to other sustainable initiatives e.g. farm business advice	15.Develop a county-wide Advisor Forum to co-ordinate and target approaches and responses to landowners in a strategic way.	FWAG to convene and chair, NFU, Dorset AONB, DEFRA, DWT, RSPB
		There may be a lack of awareness among landowners of the advisory services and schemes available to them	16.Through the Forum, develop an advisor network, to promote consistency of advice while offering a single point of contact for a landowner.	Dorset AONB, FWAG, RSPB, DWT, Purbeck BAP, NT
Prepared in consultation with:	Key to abbreviations: DWT – Dorset Wildlife Trust NFU – National Farmers Union EN – English Nature FWAG – Farming and Wildlife Advisory Group LA's – Local Authorities	Potential extra resources available for environmental land management schemes will lead to a shortage of trained advisors.	17.Through the Forum, increase the profile and reputation of the advisory service, through marketing initiatives etc.	As above
			18.Review resources for advisory services.	DEFRA, & as above
		Butterfly Conservation Dorset Branch, DEFRA Dorset AONB, Dorset Wildlife Trust Countryside and Landowners Business Association English Nature, FWAG, MOD (Lulworth Camp) National Farmers Union	DEFRA – Department of the Environment, Food and Rural Affairs NT – National Trust RSPB – Royal Society for the Protection of Bird	



2.3.1 LOWLAND MEADOWS

National Lead Partner – Countryside Council for Wales

Habitat description

Neutral grasslands are characterised by grassland occurring on a range of soils usually with a pH of between 4.5 and 6.5. It includes enclosed dry hay meadows and pastures. These are confined to two main areas in Dorset, the Wessex Vales and clays around the periphery of the Dorset Heaths. Across the UK, 97% of this habitat has been lost between 1930 and 1984, making it one of the most endangered in Britain today.

In Dorset, many of these areas comprise a mosaic of dry grassland and rush-pasture, and are often small and isolated. The few larger examples such as Kingcombe Meadows are of national importance. Most are managed as grazed pasture, with a few still managed as traditional hay meadows.

Habitat status criteria	Dorset status
UK Priority habitat	✓
SAC/SPA interest feature in Dorset	
Important for UK BAP species	✓
Local decline	Rapidly declining
Proportion of UK habitat in Dorset	Modest
Local threat	Direct
Local rarity	Scarce
Potential to extend/ link habitat fragments	Medium
Survey priority	Medium (to update existing audit)

Key at Appendix C

Specific Impacts

- Indirect effects e.g. lowering of water table
- Shift from hay-making to silage production
- Supplementary stock feeding, which can lead to nutrient enrichment and localised poaching by stock.
- Inappropriate management
- Drainage
- Lack of information on the Dorset resource
- Increasing community involvement in grassland conservation

Objectives

- 1 Maintain the extent and quality of existing unimproved lowland meadows through appropriate management.
- 2 Restore semi-improved and degraded areas of neutral grassland, particularly where they abut, link or buffer existing areas of conservation value.
- 3 Re-create areas of neutral grassland, targeting areas with concentrations of this habitat.
- 4 Promote awareness amongst landowners and managers of the importance of this habitat to wildlife and the action needed to maintain and restore it.
- 5 Determine the current extent of all semi-improved and degraded neutral grassland in Dorset in order to implement a targeted programme of restoration.

Natural Area Targets: see Appendix D

LOWLAND MEADOWS

Impacts	Current action	Evaluation	Potential Recommended action	partners
For generic issues affecting this and other agricultural habitats refer to the Programme of Action for Agriculture				
Policy and legislation				
Indirect effects eg. lowering of water table	CAMS process Environment Agency screen abstraction licences.	Not enough monitoring information to assess effects on most grassland sites.	1. Prioritise sites for monitoring	DERC, EA
Management				
Shift from hay making to silage production	Agri-environment schemes.	Many sites have been entered into agri-environment schemes. Payment levels of agri-env schemes not high enough to deter conversion for purely economic reasons; however they do provide an incentive to maintain hay production. Need to increase economic value of hay meadows.	2. Enhance link between wildflower meadows and landscape tourism. Investigate potential for marketing high quality meadow hay. 3. Investigate the use of unimproved grassland as a seed source.	LA's Flora Locale
Supplementary stock feeding	Agri-environment schemes Advisory visits.	Can be a lack of sufficient grazing land within one landholding to enable grasslands to be rested. Advisory work provides site-by-site advice on best location for supplementary feeding.	4. Through GAP project, link stock managers with sites which are lacking grazing.	EN, DWT, FWAG, Purbeck BAP
Inappropriate management	Agri-environment schemes & advisory visits. Wildlife road verges scheme.	Many sites have been entered into agri-environment schemes. Lack of management particularly affects small or isolated sites or where owners are unable to cut or graze. Some grasslands intensively horse-grazed – difficult to alter management when not part of larger landholding. Cutting timing for wildlife verges not flexible enough to provide best management. Variable standard of work by verge cutting contractors.	5. Investigate sharing of machinery/resources for hay cutting where owners lack equipment. 6. Raise awareness of best practice in horse-grazing neutral grasslands and facilitate lower-intensity grazing where possible. 7. More tailored management for the highest quality verges. 8. Review/withdraw contracts.	As above DWT, FWAG DCC, DWT DCC
Drainage	Agri-environment schemes & advisory visits. Water level management plans.	Few neutral grassland sites covered by WLMP.	9. Target advisory visits to priority sites.	DWT, FWAG, Purbeck BAP

LOWLAND MEADOWS

Research and monitoring				
Lack of information on the Dorset resource.	DERC neutral grassland inventory.	Only covers SSSIs and SNCIs; many small/ semi-improved grasslands not included.	10.Continue to gather information through SNCI process and community surveys.	DERC, DWT, LA's
	SNCI monitoring programme.	Many sites have not been monitored in last 5 or 10 years.	11.Ongoing funding needed to ensure all sites monitored every 5 years.	DWT, funding partners
Education and awareness raising				
Increasing community involvement in grassland conservation	Living Churchyards project.	Programme needed to cover other community-managed areas.	12.Incorporate neutral grasslands into community-based BAP implementation.	Dorset Biodiversity Partners
	<p>Key to abbreviations:</p> <p>AONB – Area of Outstanding Natural Beauty</p> <p>DCC – Dorset County Council</p> <p>DERC – Dorset Environmental Record Centre</p> <p>DWT – Dorset Wildlife Trust</p> <p>EA – Environment Agency</p> <p>EN –English Nature</p> <p>FWAG –Farming and Wildlife Advisory Group</p> <p>LA's Local Authorities</p>			



2.3.2 PURPLE MOOR GRASS AND RUSH PASTURE

National Lead Partner: Countryside Council for Wales

Habitat description

Most purple moor grass and rush pasture sites exist on poorly drained, nutrient-poor soils. They consist of mosaics of different communities that can include species-rich fen-meadows, wet heaths and mire, as well as drier grassland and scrub.

Purple moor grass is a species-rich vegetation developed on nutrient-poor but base-rich soils. In Dorset the stands are small and fragmented, and largely confined to the Wessex Vales and Dorset Heaths Natural Areas. The Marsh Fritillary is found in this habitat at a number of sites.

Rush pasture is the most common vegetation type in poorly drained pastures. Soft and Sharp-flowered rush dominate, and when grazed a wide variety of herb species are present. This habitat is much more widespread than purple moor grass.

Habitat status criteria	Dorset status
UK Priority habitat	✓
SAC/SPA interest feature in Dorset	✓
Important for UK BAP species	✓
Local decline	Decline
Proportion of UK habitat in Dorset	Low
Local threat	Indirect
Local rarity	Rare
Potential to extend/ link habitat fragments	Medium
Survey priority	Medium

Key at Appendix C

Specific Impacts

- Agricultural improvement, including drainage, cultivation and use of fertilisers
- Lack of grazing management, leading to rankness and scrub encroachment
- Fragmentation, leading to loss of viability of key species
- Past forestry planting
- Lack of knowledge of the Dorset resource

Objectives

- 1 Maintain the extent and quality of existing habitat.
- 2 Secure sympathetic management of remaining sites, which perpetuate the species they support.
- 3 Increase the area of purple moor grass and rush pasture habitat by appropriate means, in order to buffer, link and expand existing sites.
- 4 Continue to conduct research and monitoring which will improve our knowledge and understanding of associated key species.
- 5 Provide opportunities for education, access and awareness raising initiatives.

Natural Area Targets: See Appendix D

PURPLE MOOR GRASS AND RUSH PASTURE

Impacts	Current action	Evaluation	Recommended action	Potential partners
For generic issues affecting this and other agricultural habitats refer to the Programme of Action for Agriculture				
Policy and legislation				
Agricultural improvement	SSSI/SAC designation	Most sites now covered by statutory designations; loss through agricultural improvement now slowed. SNCI sites remain vulnerable to agricultural improvement.	1. Promote entry of SNCI sites into agri-environment schemes or other management agreements.	DWT, EN, DEFRA
Management				
Lack of grazing management	Agri-environment schemes. English Nature grant aid. Nature reserve management.	Difficult to maintain appropriate grazing regimes, especially where initial control of scrub and rank growth needed.	2. Encourage establishment of extensive grazing units where possible. 3. Monitor sward condition and key species and adjust grazing as needed.	EN, DWT, DEFRA
Forestry planting	Restoration through conifer removal at Powersstock Common (DWT).	Early stages of restoration programme (not just aimed at this habitat). Evaluation of biodiversity outcomes needed.	4. Monitor restoration of purple moor grass & rush pasture at Powersstock Common and use as a case study.	DWT, EN
Fragmentation	Management/restoration of existing sites.	Populations of Marsh Fritillary within this habitat still in decline.	5. Investigate possibilities for linking, buffering and extending sites, including assessment of potential benefits to key species in the long-term.	EN, DWT, Butterfly Conservation
Research and monitoring				
Knowledge of Dorset resource	DERC Neutral grassland inventory. NBN SW Pilot	Awareness of extent and distribution of habitat in Dorset not well known. As one of the rarer habitats it can get combined with others in statistics.	6. Ensure NBN Pilot project separates out this habitat from other fens and rush pastures.	DERC
<p>Key to abbreviations:</p> <p>DERC – Dorset Environmental Record Centre DEFRA – Department of the Environment, Food and Rural Affairs DWT – Dorset Wildlife Trust EN –English Nature</p>				



2.3.3 LOWLAND CALCAREOUS GRASSLAND

National Lead Partner: English Nature

Habitat description

Calcareous grassland occurs on chalk or limestone substrates; Dorset supports important areas of both types.

Dorset's chalk grassland supports an outstanding range of flora and fauna across an area of just under 3000ha. This habitat is very fragmented and mainly confined to the steeper slopes of the South Wessex Downs and Purbeck Ridge. The majority of the chalk grassland has been recognised to be either of national or of countywide interest.

Limestone grassland is much smaller in area, but equally fragmented; most of it is on the Isle of Portland or the Purbeck coast, with a few sites in the west and north. The Dorset Limestone Grassland Inventory identified 480 ha in the county. The vast majority of this has been recognised as being of national importance and is designated SSSI. The remaining 29.3% is within SNCIs. The limestone turf supports many key plant species. It also supports the range of butterflies that occur on the chalk.

Habitat status criteria	Dorset status
UK Priority habitat	✓
SAC/SPA interest feature in Dorset	✓
Important for UK BAP species	✓
Local decline	Decline
Proportion of UK habitat in Dorset	Significant
Local threat	Direct
Local rarity	Scarce
Potential to extend/ link habitat fragments	High
Survey priority	Low

Key at Appendix C

Specific Impacts

- Loss of grazing or under-grazing leading to scrub invasion.
- Intensification, by application of fertilisers and herbicides or over-grazing.
- Fragmentation leading to reduced species and/or management viability.
- Game cover and management – damage to sward and invertebrate populations.
- Knowledge of Dorset resource.

Objectives

- 1 Maintain the extent and quality of existing habitat.
- 2 Secure sympathetic management of remaining sites, which perpetuate the species they support.
- 3 Increase the area of purple moor grass and rush pasture habitat by appropriate means, in order to buffer, link and expand existing sites.
- 4 Continue to conduct research and monitoring which will improve our knowledge and understanding of associated key species.
- 5 Provide opportunities for education, access and awareness raising initiatives.

Natural Area Targets: see Appendix D

LOWLAND CALCAREOUS GRASSLAND

Impacts	Current action	Evaluation	Recommended action	Potential partners
For generic issues affecting this and other agricultural habitats refer to the Programme of Action for Agriculture				
Management				
Loss of grazing/ under-grazing	<p>Agri-environment schemes [South Wessex Downs ESA, Countryside Stewardship]</p> <p>EN have grant-aided large-scale scrub management on downland sites.</p> <p>Purbeck biodiversity project has facilitated scrub clearance and agri-environment scheme entry on Purbeck chalk & limestone sites.</p>	<p>Significant area entered into schemes over last 10 years.</p> <p>Scrub management on many previously quarried limestone grasslands has not been tackled</p>	<p>1. Continue to facilitate CS, ESA and EN grant-aiding for appropriate sites.</p> <p>2. Investigate grazing initiatives for former quarry sites on Portland and elsewhere.</p>	<p>DEFRA, EN, DWT, FWAG, Purbeck BAP</p> <p>EN, DWT, LA's, minerals industry</p>
Intensification	Agri-environment schemes, English Nature grant-aiding, EIA Regulations [see Agriculture topic plan]	<p>Rate of intensification has slowed as mainly steep slopes remain, funding available for management and the best sites protected as SSSI. Some SNCIs and other sites remain vulnerable.</p> <p>Many sites vulnerable to eutrophication from run-off or spray drift.</p>	<p>See Action no.1</p> <p>3. Encourage use of buffer zones adjacent to, and especially upslope of, SNCI/SSSI calcareous grassland sites.</p>	DEFRA, EN, DWT, FWAG, Purbeck BAP
Fragmentation	Agri-environment schemes	<p>Significant areas entered into downland turf creation through ESA. At first sites did not always buffer/link existing downland but now targeted to do this.</p> <p>Many areas remain isolated by large areas of arable/improved grassland.</p>	<p>4. Investigate possibilities for landscape-scale restoration of calcareous grassland in areas offering greatest potential biodiversity gains.</p>	EN, DWT, RSPB, AONB, DEFRA, Purbeck BAP
Game cover and management (continued overleaf)	Agri-environment schemes	Some downland areas have been lost to planting of game cover and trees.	5. Ensure grant aid is not given to tree planting which would damage calcareous grasslands.	FC

LOWLAND CALCAREOUS GRASSLAND

Impacts	Current action	Evaluation	Recommended action	Potential partners
Research and monitoring				
Knowledge of Dorset resource	DERC Chalk and Limestone grassland inventories	Inventories cover SSSIs and SNCIs; further sites may be found. Some SNCIs have not been monitored in last 5-10 years.	6. Continue to gather information through SNCI process and community surveys. Ongoing funding needed to ensure all sites monitored every 5 years.	DERC, DWT, LAs
	National Trust Purbeck Estate monitoring	Annual monitoring on some sites. Needs expanding.		
Key to abbreviations: AONB – Area of Outstanding Natural Beauty DEFRA – Department of the Environment, Food and Rural Affairs DWT – Dorset Wildlife Trust EN –English Nature FWAG – Farming and Wildlife Advisory Group FC – Forestry Commission LA's – Local Authorities NT – National Trust RSPB – Royal Society for the Protection of Birds				

2.3.4 LOWLAND DRY ACID GRASSLAND

National Lead Partner: English Nature

Habitat description

Lowland acid grassland typically occurs on nutrient-poor, generally free-draining soils with pH ranging from 4 to 5.5 overlying sands and gravels. In Dorset this habitat is largely confined to two distinct areas: the Poole Basin within the Dorset Heaths Natural Area; and west Dorset, where they have developed on acid hilltops. Dorset supports approximately 500 ha of dry acid grassland (DERC, 2002). The parched sandy grasslands of the Poole Basin are of national importance for their acid grassland plants, while some of those in west Dorset are rich in Wax-cap fungi.

Acid grassland is normally managed through grazing by livestock or rabbits; on some sites it is maintained by mowing (often along with rabbit grazing). However, some of the richest sites have developed naturally on former arable land and disturbance is an additional important factor in maintaining the rich flora.

Management of many acid grasslands in Dorset is intrinsically linked to heathland management.

Habitat status criteria	Dorset status
UK Priority habitat	✓
SAC/SPA interest feature in Dorset	
Important for UK BAP species	✓
Local decline	Decline
Proportion of UK habitat in Dorset	Modest
Local threat	Direct
Local rarity	Rare
Potential to extend/ link habitat fragments	High
Survey priority	Low

Key at Appendix C

Specific Impacts

- Conversion to improved grasslands or arable through ploughing, application of lime, fertilisers and herbicides
- Undergrazing or neglect leading to invasion by scrub and bracken
- Lack of knowledge of the Dorset resource
- Restoration/management under-prioritised in heathland restoration schemes
- Lower awareness of acid grassland than other habitats

Objectives

- 1 Maintain the extent and quality of all unimproved and semi-improved dry acid grassland through appropriate management.
- 2 Restore degraded acid grassland sites.
- 3 Re-create new areas of acid grassland targeting areas with concentrations of the habitat.
- 4 Continue to conduct research and monitoring which will improve our knowledge and understanding of associated key species.
- 5 Provide opportunities for education, access and awareness raising initiatives.

Natural Area Targets: see Appendix D

LOWLAND DRY ACID GRASSLAND

Impacts	Current action	Evaluation	Recommended action	Potential partners
For generic issues affecting this and other agricultural habitats refer to the Programme of Action for Agriculture				
Management				
Conversion to improved grasslands or arable	Landowner liaison via SNCI Project, Purbeck BAP and others.	<p>Conservation management of some key sites has been secured through grant aiding. Many are in conservation ownership.</p> <p>Restorable semi-improved acid grasslands at risk of improvement or ploughing.</p> <p>Significant number of SNCI sites within business/LA/ MoD ownership and managed by mowing. Awareness of habitat importance and management needs should be continually raised as site managers/priorities can change rapidly.</p>	<ol style="list-style-type: none"> 1. Maintain regular liaison programme with owners of all acid grassland SSSIs/SNCIs. 2. Identify key semi-improved sites for restoration as part of large-scale heathland restoration plans. 3. Make specific advice on mown acid grasslands in Dorset available. 4. Bring business owners within the wider heathland management partnership. 5. Explore opportunities to extend heathland grazing schemes to currently mown acid grassland sites. 	<p>EN, DWT, Purbeck BAP, FWAG,</p> <p>EN, FC, DWT</p> <p>DWT, EN</p> <p>Heathland Forum</p> <p>EN, RSPB DWT, Purbeck BAP</p>
Undergrazing or neglect leading to invasion by scrub and bracken	Introduction of grazing through agri-environment schemes. Tomorrow's Heathland Heritage initiative and EN grants.	<p>Significant progress made. Key sites still lack some formerly present acid grassland species, as reported in 'Dorset's Disappearing Heathland Flora'.</p> <p>Some acid grassland sites may need more intensive management to create and maintain short swards with bare ground.</p>	<ol style="list-style-type: none"> 6. New extensive heathland grazing schemes should ensure peripheral (as well as integral) acid grassland sites are included. 7. Investigate stock/habitat management techniques for short acid turf which do not conflict with other heathland priorities. 	<p>EN, RSPB, DWT, Las, NT</p> <p>EN, RSPB, NT, DWT, HCT, LAs</p>
Research and monitoring				
Knowledge of extent of Dorset resource	Provisional acid grassland inventory produced by DERC	Only includes SSSIs & SNCIs – main areas covered but some sites not included in SNCI series as survey has not been possible or sites are small.	8. Continue to survey additional areas, focussing on key species. Consider for SNCI status where appropriate.	DERC, SNCI Panel, individual recorders
Education and awareness raising				
Restoration/management under-prioritised in heathland restoration schemes	Improved liaison on CS applications has largely addressed past issue of heathland restoration proposals on acid grasslands.	<p>Awareness amongst conservation and commercial land management advisors should be maintained.</p> <p>Tendency to rely on acid grassland areas being created through heathland restoration – can mean areas are small, fragmented or not managed specifically as acid grassland.</p>	<ol style="list-style-type: none"> 9. Ongoing series of awareness events and materials needed. 10. Include designed acid grassland areas in large-scale heathland restoration and management schemes. 	<p>EN, DWT, FWAG, Purbeck BAP, EN, FC, RSPB, LAs, NT</p>

LOWLAND DRY ACID GRASSLAND

Education and awareness raising cont . . .

Lower awareness of acid grassland than other habitats

'Dorset's Disappearing Heathland Flora' includes acid grassland species.

DERC acid grassland inventory.

EN leaflet available

Awareness raised within nature conservation sector but less so amongst other land managers, planners, developers and the community.

Although useful to include acid grassland in heathland advice, specific awareness tools are needed to raise profile.

11. Increase awareness of developers and planning authorities of acid grassland as a priority habitat and of opportunities/ techniques for management and restoration.

12. Make better use of EN acid grassland leaflet. Provide specific Dorset-based information.

EN, DWT, FWAG, Purbeck BAP, LA's

EN, DWT, LA's

Key to abbreviations:

DWT – Dorset Wildlife Trust
DEFRA – Department of the Environment, Food and Rural Affairs
EN – English Nature
FC – Forestry Commission
FWAG – Farming and Wildlife Advisory Group
HCT – Herpetological Conservation Trust
LA's – Local Authorities
NFU – National Farmers Union
NT – National Trust
RSPB - Royal Society for the Protection of Birds



2.3.5 ANCIENT AND/OR SPECIES RICH HEDGEROWS

National Lead Partner: DEFRA

Habitat description

Hedgerows are an intimate element of the farmed landscape and are a refuge for a wide range of plants and animals. They act as wildlife corridors, providing protection and assisting dispersal of species in an otherwise fragmented landscape.

Ancient hedgerows, which tend to be those which support the greatest diversity of plants and animals, may be defined as those which were in existence before the Enclosure Acts passed mainly between 1720 and 1840 in Britain. Species-rich hedgerows may be taken as those which contain five or more native woody species on average in a 30 metre length. Hedges which contain fewer woody species but a rich basal flora of herbaceous plants are also included.

As a region, the south west probably has a greater number of species-rich hedges remaining than any other region in the UK. In Dorset, the west of the county holds the highest concentration of this habitat.

Habitat status criteria	Dorset status
UK Priority habitat	✓
SAC/SPA interest feature in Dorset	
Important for UK BAP species	✓
Local decline	Decline
Proportion of UK habitat in Dorset	Modest, in west of county
Local threat	Direct
Local rarity	Scarce
Potential to extend/ link habitat fragments	High
Survey priority	High

Key at Appendix C

Specific Impacts

- Removal of hedgerows and hedgerow trees.
- Lack of buffer zones around hedges in an intensively farmed landscape leading to damage caused by ploughing, browsing stock and spray drift.
- Neglect leading to gaps and loss of structure.
- Inappropriate management – too frequent or ill-timed cutting prevents hedges from producing fruits and berries that are a food source for many species. The type of cutting can also damage hedges.
- Knowledge of the Dorset resource.
- Awareness of management issues.

Objectives

- 1 Maintain the current network of ancient and species rich hedgerows.
- 2 Achieve favourable management and enhancement of ancient and species rich hedgerows.
- 3 Increase the length of species-rich hedgerows in Dorset.
- 4 Maintain the overall numbers of hedgerow trees to eventually obtain a balanced age structure.

Natural Area Targets: see Appendix D

ANCIENT AND/OR SPECIES RICH HEDGEROWS

Impacts	Current action	Evaluation	Recommended action	Potential partners
For generic issues affecting this and other agricultural habitats refer to the Programme of Action for Agriculture				
Policy and legislation				
Removal of hedgerows and hedgerow trees.	Hedgerow Regulations 1997	<p>Removal of hedgerows has slowed since 1997. Not known if all applications for removal are ecologically evaluated; of those surveyed by DERC, few are connected with increasing field size; most relate to creating gaps for access/ development.</p> <p>Regulations not tailored to Dorset situation – ancient hedges with few woody species do not always qualify.</p> <p>Ecological assessment not always carried out with planning applications; Regulations do not cover hedges adjacent to gardens.</p> <p>Significant lengths of new hedgerow planted through agri-environment schemes and local authority grants.</p>	<p>1. Ensure all hedgerow removal applications are ecologically evaluated through field surveys.</p> <p>2. Raise awareness of importance of hedges not covered by Regulations and target for grant aid.</p> <p>3. Ensure all hedges covered by the Regulations are ecologically assessed through the planning process. Utilise the Regulations to assess impacts of losing other hedges to development.</p> <p>4. Target grants for planting to sites which link or reinforce existing hedges/ create corridors between other features/ help control run-off, using native species.</p>	<p>LA's, DERC</p> <p>LA's, DEFRA, DWT, FWAG</p> <p>LA's</p> <p>DEFRA,, LA's</p>
Management				
Lack of buffer zones	<p>Agri-environment schemes – conservation headlands and grass buffer strips.</p> <p>Some advice given through Environment Agency farm management advice and best practice manual.</p>	<p>Schemes need to offer other benefits; funding not available for widespread hedge and hedgerow tree buffering.</p> <p>Loss through eutrophication of typical ancient woodland and unimproved grass bank species from roadside hedgebanks.</p>	<p>5. Investigate options for lower cost widely available grant aid for buffering.</p> <p>6. Assess impacts of road verge cutting regime; adjust if needed. Removal of cuttings on remaining ancient hedgebank verges should be a priority.</p>	<p>DEFRA</p> <p>DCC, DWT</p>
Neglect/ lack of management	Agri-environment schemes grant aid management and restoration.	<p>A significant number of hedgerows fall outside the current grant-aiding system. The new agri-environment 'entry level scheme' will aim to address this.</p> <p>Neglect now the major factor affecting overall biodiversity of Dorset hedges. Many have not been laid/coppiced for 40-50 years and become shaded, overgrown or gappy leading to loss of structure and ground flora.</p>		

(continued overleaf)

ANCIENT AND/OR SPECIES RICH HEDGEROWS

Impacts	Current Action	Evaluation	Recommended action	Potential partners
Management cont . . .				
Inappropriate management	Agri-environment schemes and local authority grants aid planting, traditional and ongoing management.	Not all hedges eligible for grants. New 'entry level' agri-environment scheme could help.	7. Make hedgerow grants more widely available. 8. Ensure appropriate maintenance requirements are within new 'entry level' scheme.	DEFRA, LA's DEFRA Purbeck BAP
Research and monitoring				
Knowledge of Dorset resource	DERC research on hedgerow condition.	Will compare species composition of selected hedges with data from '1930s. Widespread hedgerow data are not held.	9. Use results when completed to inform hedgerow policies and grants in Dorset and more widely. 10. Use results of DERC project to produce Dorset-specific guidance on habitat quality.	DERC, DEFRA, WDDC DERC, DWT, FWAG
Education and awareness raising				
Awareness of management issues.	Advisory work. Newsletters/ leaflets.	Provides on-site advice as resources allow and general information. Possible need for more co-ordination of advice and tailoring to Dorset situation.	11. Investigate benefits of setting up a 'Dorset Hedge Group'	AONB, FWAG, DWT, LA's, NT
<p>Key to abbreviations:</p> <p>AONB – Area of Outstanding Natural Beauty DCC - Dorset County Council DWT – Dorset Wildlife Trust DEFRA – Department of the Environment, Food and Rural Affairs EN – English Nature FWAG – Farming and Wildlife Advisory Group LA's – Local Authorities NT – National Trust WDDC – West Dorset District Council</p>				

2.3.6 ARABLE LAND

National Lead Partner: DEFRA

Habitat description

The UK BAP habitat of cereal field margins has been broadened for the context of Dorset, to include the whole arable field, where it is utilised by key species.

Arable land covers approximately 37% of the county. Of this, 49% was under cereal crops in 1999 (MAFF figures). Biodiversity on arable farmland has come under intense pressure due to increasing intensification and specialisation of arable production.

There is little quantitative data for biodiversity-rich arable land in Dorset. There is however, much evidence of massive declines in plant species indicative of such biodiversity-rich arable communities and of widespread declines in populations of farmland birds. In Dorset the tree sparrow has recently been lost as a breeding species, and species such as grey partridge and corn bunting are increasingly rare in the county. 'Hotspots' for arable biodiversity occur on the chalk in north-east Dorset and in south Purbeck.

There are links with water quality issues through soil erosion and nitrate leaching where arable land is a waterside habitat.

Habitat status criteria	Dorset status
UK Priority habitat	Cereal field margins only
SAC/SPA interest feature in Dorset	
Important for UK BAP species	✓
Local decline	Rapidly declining
Proportion of UK habitat in Dorset	Unknown
Local threat	Direct
Local rarity	Rare
Potential to extend/ link habitat fragments	High
Survey priority	High

Key at Appendix C

Specific Impacts

- Use of broad spectrum agrochemicals – fertilisers, herbicides, pesticides and fungicides – has reduced the variety of plants and insects, and hence the fauna that rely on them.
- Shift from spring to autumn sown cereals – the loss of overwintering stubbles and the earlier harvesting of autumn sown cereals has led to loss of habitat and feeding ground for many farmland birds and does not correlate with the life cycle of many rare plants reliant on arable habitats.
- Simplification of crop rotation and reduced crop diversity – larger fields, uniform blocks of crops and simpler rotations has reduced the complexity of the habitat mosaic. In some areas arable habitat lost in favour of grassland.
- Lack of information, recognition and protection of key sites.
- Lack of recognition and protection of key sites.

Objectives

- 1 Maintain the extent and quality of sites important for arable biodiversity.
- 2 Increase the extent of arable land that is managed sympathetically for biodiversity.
- 3 Achieve favourable management for all known sites of importance for biodiversity.
- 4 Ensure that the needs of priority species associated with arable habitats are met.
- 5 Improve knowledge of arable biodiversity in Dorset through survey, research and monitoring.
- 6 Raise awareness of the importance of arable land for biodiversity.

Natural Area Targets: see Appendix D - cereal field margins

ARABLE LAND

Impacts	Current action	Evaluation	Recommended action	Potential partners
For generic issues affecting this and other agricultural habitats refer to the Programme of Action for Agriculture				
Management				
Use of broad spectrum agrochemicals	Industry change has led to increased use of more narrow spectrum chemicals	Conservation headlands have contributed towards raising awareness of arable biodiversity; and in some locations assisted specific species.	1. Promote entry into Countryside Stewardship arable options in suitable locations to benefit key species.	DEFRA, FWAG, DWT, Purbeck BAP, RSPB, NT
	New Countryside Stewardship arable options restrict use of agrochemicals.	Broader grant aid to encourage reduced use of chemicals could be beneficial.	2. Evaluate possible options for wider reduction in agrochemical use through future 'broad and shallow' scheme.	DEFRA, FWAG, DWT, Purbeck BAP, RSPB, NT
Shift from spring to autumn sown cereals	Organic farming.			
	Arable options introduced to Countryside Stewardship scheme in 2002 provide grant aid for winter stubbles/spring cereals	Future evaluation of biodiversity benefits of arable options is essential.	See action no. 1	DEFRA, FWAG, DWT, Purbeck BAP, RSPB, NT
Simplification of crop rotation and reduced crop diversity	Specific derogations available since 2000 for lapwing plots.	Previous measures have helped in situations where derogations granted. However, broader (but targeted) grant-aiding for winter stubbles/ spring cereals needed to benefit many key species.	3. Monitor biodiversity outcomes of agri-environment schemes and utilise results in reviewing prescriptions.	DEFRA, DERC, RSPB, DWT, Purbeck BAP, NT
	Set-aside provides some suitable habitat.			
Simplification of crop rotation and reduced crop diversity	'Tailings' project involved farmers in providing a winter food source for farmland birds.			
	Organic farming.	Organic holdings not always mixed farming systems – though where they are, a diversity of crops and grassland is more likely. 'Entry level' scheme should promote these features further. No options currently available for extensive fodder crop options.	4. Promote biodiversity benefits of organic farming through initiatives that link local food to the Dorset landscape.	DEFRA, FWAG, DWT, Purbeck BAP, RSPB, AONB
Simplification of crop rotation and reduced crop diversity	Agri-environment schemes provide grants for hedgerow planting and beetle banks. New Countryside Stewardship arable options provide incentive to diversify.		5. Promote entry into Countryside Stewardship hedge planting, beetle banks and arable options in suitable locations to benefit key species. Provide input into agri-environment review on additional measures needed.	DEFRA, FWAG, DWT, Purbeck BAP, RSPB, AONB

ARABLE LAND

Management cont . . .					Portland Bird Observatory, EN, RSPB, DERC
	Arable/stubbles habitat reintroduced in key area on the Isle of Portland.	Reinstated arable areas need evaluation over time	6. Monitor effectiveness of reintroducing arable cropping for biodiversity purposes. If successful expand to other areas.		
Research and monitoring					
Lack of information on key sites	RSPB/Purbeck BAP farmland bird surveys carried out in 'hotspot' areas to help target grants.	Information has helped in targeting advisory work and grant applications in Purbeck and NE Dorset. Advisory work on arable biodiversity has been co-ordinated well between partners.	7. Continue to monitor key species and expand survey work to cover other areas and species.		DERC, RSPB, Purbeck BAP, DWT
	Purbeck inventory of arable sites & RSPB arable 'weed' audit.		8. Monitor effectiveness of agri-environment schemes for key species.		As above
Education and awareness raising					
Lack of recognition and protection of key sites.	Sites recognised through inventories and agri-environment schemes. SNCI system covers arable plants and looked into guidelines for birds.	Few SNCIs cover arable habitats as difficult to define boundaries, particularly for birds or where interest only in margins. Inventories/key species records have been used effectively to target agri-environment grants.	9. Raise awareness with owners/managers of key sites of importance for biodiversity and promote sympathetic management.		DEFRA, RSPB, Purbeck BAP, DWT
			10. Raise awareness of importance of arable biodiversity within the wider community.		RSPB, DWT, NT, Purbeck BAP
Key to abbreviations:					
DWT – Dorset Wildlife Trust DERC – Dorset Environmental Records Centre DEFRA – Department of the Environment, Food and Rural Affairs EN – English Nature FWAG – Farming and Wildlife Advisory Group LA's – Local Authorities NFU – National Farmers Union NT – National Trust RSPB – Royal Society for the Protection of Birds					



2.3.7 PONDS

National Lead Partner: None

Habitat description

The number of ponds in the wider countryside in Dorset is unknown. The UK total is estimated at 243,000 small water bodies (between 25m² and 2ha). A 75% decline is thought to have occurred over the last 110 years. Although pond numbers in the UK are now relatively stable, ponds in Dorset suffer from the same problems as those nationally, particularly infilling, pollution and scrub encroachment.

Ponds provide valuable refuges in the wider countryside for many forms of wildlife, particularly amphibians and aquatic invertebrates. Ephemeral ponds (ponds which dry out for part of the summer) can support specialised flora and fauna, but are under threat because their special value can be overlooked or destroyed by deepening them to form permanent ponds.

The Biodiversity Management Group has proposed that a Habitat Action Plan is prepared for this habitat. This Habitat Statement will form the basis of the action plan.

Habitat status criteria	Dorset status
UK Priority habitat	Proposed (for ponds of high ecological value)
SAC/SPA interest feature in Dorset	
Important for UK BAP species	✓
Local decline	Unknown
Proportion of UK habitat in Dorset	Unknown
Local threat	Direct
Local rarity	Unknown
Potential to extend/ link habitat fragments	Create clusters
Survey priority	Medium

Key at Appendix C

Specific Impacts

- Pollution
- Infilling of ponds
- Inappropriate management of ponds and adjacent land
- Non-native species (e.g *Crassula helmsii*)
- Isolation
- Gaps in knowledge

Objectives

- 1 Ascertain the value and extent of the existing resource
- 2 Retain and enhance the existing range and value of open water habitats by appropriate management.
- 3 Promote the retention, creation and enhancement of buffer zones and sympathetic land use around water bodies.
- 4 Promote the strategic creation of 'pond ways' or pond clusters
- 5 Continue to conduct research and monitoring which will improve our knowledge and understanding of associated key species.
- 6 Provide opportunities for education, access and awareness raising initiatives

Natural Area Targets: There are no Natural Area targets set for this habitat.

PONDS

Impacts	Current action	Evaluation	Recommended action	Potential partners
For generic issues and recommended actions affecting this and other agricultural habitats refer to the 'Programme of Action for Agriculture'				
Policy and legislation				
Pollution	See Freshwater Management Programme of Action : Water quality – diffuse pollution.	See Freshwater Management Programme of Action : Water quality – diffuse pollution.	See Freshwater Management Programme of Action : Water quality – diffuse pollution.	
Management				
Infilling of ponds	Pond infilling often controlled through planning legislation. Legislation to protect key pond species, e.g. great crested newts.	Only works where ponds are known to exist. Effective only when species are known about.	1.Complete a county-wide pond survey to provide a comprehensive baseline. See action 5, 6 and 7 below.	DWT, HCT, DERC, LA's, NT
Inappropriate management of ponds and adjacent land	Follow up management advice through Great Crested Newt Group surveys in West Dorset and Purbeck. Pond management leaflet to be produced by Great crested newt Group (locally). Great crested newt handbook available nationally. Small scale pond restoration projects. FWAG Whole Farm Plans can integrate management of ponds and surrounding land.	Pond restoration and creation payments are available through agri-environment schemes. Management advice for non great crested newt ponds is patchy and unco-ordinated.	2.Provide advice on management of ponds for Great Crested Newts in North and East Dorset. 3.Through preparation of a Ponds Habitat Action Plan, establish co-ordinated action for ponds of wildlife value, to compliment the Great crested newt work.	DWT, FWAG, Purbeck BAP Project Dorset Biodiversity Partnership to lead
Non native species (e.g. <i>Crassula helmsii</i>)	Garden Centre Project to raise awareness of invasive plant problem.	Important education project. Success to be determined.	See Generic action in freshwater management programme of action. Nos.25 and 26.	EA, DWT
Isolation	Information leaflets on pond creation (national and local). Agri-environment schemes to create new ponds.	Isolated ponds have limited value without considering its place within a pond 'cluster'.	4.Pond creation strategy to be developed (to include ephemeral ponds).	Through preparation of Habitat Action Plan

(continued overleaf)

PONDS				
Impacts	Current Action	Evaluation	Recommended action	Potential partners
Research and monitoring				
Gaps in knowledge	Great Created Newt Group surveying ponds in Dorset that are important for the species. Database being developed to hold information.	<p>Further surveying is required for comprehensive coverage of great crested newt distribution.</p> <p>No inventory of ponds that support BAP species or are of wildlife importance.</p> <p>Further data required e.g. for some scarce groups of invertebrates and stoneworts.</p>	<p>5. Utilise database to analyse and fill in gaps in knowledge.</p> <p>6. Seek resources to undertake a pond inventory.</p> <p>7. Identify further priority species survey work.</p>	<p>Grest Crested Newt Group</p> <p>Dorset Biodiversity Partnership</p> <p>Dorset Biodiversity Partnership</p>
<p>Key to abbreviations:</p> <p>DWT – Dorset Wildlife Trust</p> <p>DERC – Dorset Environmental Records Centre</p> <p>EN – English Nature</p> <p>FWAG – Farming and Wildlife Advisory Group</p> <p>HCT – Herpetological Conservation Trust</p> <p>LA's – Local Authorities</p> <p>NT – National Trust</p>				

2.4 TOPIC ACTION PLAN: Freshwater Management

Extract of a photo by Ian Anderson

Introduction

The use of water affects biodiversity in many ways. Inappropriate management and over-abstraction can lead to depletion of rivers, lakes and wetlands. Wetland habitats and the wildlife that depends on them can be severely affected by both water level and water quality. Watercourses are particularly dependent on the amount and quality of water available, and pollution is a major threat.

With the additional threat of climate change and the consequent changes in rainfall patterns, the availability and demand for water needs to be managed in a sustainable way.

There are important links with the agriculture sector, where patterns of agricultural land use within rural catchments often dictate the condition and extent of the wetland and water environment. As a result the factors affecting biodiversity in the agriculture sector also apply to the freshwater management sector. In addition there are important links to the land use planning sector where planning policies need to achieve better integration with water management regimes to ensure that enough water, of sufficient quality, is available at the right times to support wetland biodiversity objectives as well as to provide flood defence.

The EC Water Framework Directive will increasingly set the context for other policy initiatives relating to water and wetlands. It aims to achieve sustainable water management through further development of the catchment-scale approach. This will bring clear benefits for aquatic and wetland wildlife.

A Vision for the Freshwater Management Sector (from the 'England Biodiversity Strategy' DEFRA 2002)

'A whole catchment approach to land use and water management with all sectors of the community playing an active role. In this way, we are reversing the degradation and fragmentation of water and wetland habitats and restoring their functions to deliver long-term social, economic and environmental benefits. We measure the sustainability of our approach to water management by the condition of our aquatic and wetland ecosystems, and are proud of the biodiversity of the water environment.'

Aim

- To reverse historical habitat degradation and fragmentation of freshwater habitats and restore the functioning and quality of wetland ecosystems.

Impacts

- Water quality – pollution through point sources (waste outfalls from industry, farms, sewage works, aquaculture including watercress beds).
- Water quality – pollution through diffuse sources (soil erosion, road drainage, down wash of slurries and other wastes).
- Water levels.
- Water resources – over-abstraction from water courses and aquifers increasing likelihood of low flows with associated water quality problems (low dissolved oxygen, algal growth), and drying out of associated habitats. (Global climate change may exacerbate the problem).
- Habitat loss, fragmentation and isolation.
- Understanding of habitat and species status and requirements.
- Spread of invasive non-native species – e.g. Japanese Knotweed, Himalayan Balsam, signal crayfish, mink.
- Lack of awareness by the public of freshwater issues.

The following table recommends key actions to address these impacts.

Suggested Headline Indicators

- Condition of water and wetland SSSIs.
- Populations of water and wetland birds.
- Progress towards water and wetlands priority habitat and species targets.
- Proportion of surface water bodies judged at good status or above.
- Biological quality of rivers.

FRESHWATER MANAGEMENT

Impacts	Current action	Evaluation	Recommended action	Potential partners
Policy and legislation				
Water quality – point source pollution	<p>Generic - discharge consenting process</p> <p>Agricultural –Regulatory framework (e.g fertiliser application/ slurry storage)</p> <p>Urban – Regulatory framework e.g Water Company Asset Management Plans (AMPs)</p>	<p>Process managed effectively but River Quality Objectives (RQO) not set against BAP requirements.</p> <p>National trend towards an increase in point source and diffuse pollution incidents from agricultural discharge. New Farm Waste Grant Scheme for Nitrate Vulnerable Zones (NVZ) should help in NVZ areas, but does not cover the whole county.</p> <p>Doesn't regulate unsewered villages, or non water company related discharges.</p> <p>Failures and overflows from water company facilities</p> <p>Where failure of RQOs leads to inclusion in AMP, there is no mechanism to include BAP requirements in the process. Robust data is required to prove action is required through AMP. Habitats Directive requirements are incorporated into AMP</p>	<ol style="list-style-type: none"> 1.Lobby locally, and through regional and national contacts, to set RQO's against BAP requirements. 2.Work with the Environment Agency locally, and through regional and national contacts for appropriate targeting to high risk areas for farm visits to prevent farm pollution incidents through upgrading farm storage facilities 3.Work with local authorities to improve discharges from unsewered villages. 4.Check robustness of sewer systems on important sites as a priority. 5. See action 1 above 	<p>DWT, RSPB, EN</p> <p>DWT, FWAG, RSPB, EN</p> <p>Water Companies, EA, LA's Water Companies,</p>
Water quality – diffuse pollution (from agricultural practices)	<p>Nitrate Vulnerable Zones</p> <p>DEFRA Agri-environment Review</p> <p>Agri-environment schemes can encourage management to reduce run-off. Landowner liaison officers promote the setting up of buffer strips along watercourses where there is a problem.</p> <p>Pilot 'Landcare' Project on Avon</p>	<p>Recently extended to cover 55% of UK. (Nearly 50% of Dorset). NV's were set up to meet drinking water requirements, and are not necessarily targeted towards wildlife gain. Therefore key habitats in Dorset are not covered (e.g chalk winterbournes)</p> <p>Progressed nationally</p> <p>Countryside Stewardship/ ESA Scheme not set up to deal with run-off, but can be a side benefit. This is being addressed through agri-environment review</p> <p>Limited area, but Project Officer providing useful link with farmers</p>	<ol style="list-style-type: none"> 6.During next review of NVZs in 2006, lobby for it to cover all BAP habitats 7.Look favourably at agri-environment scheme applications that will benefit water quality 8.Set up demonstration sites to train advisors and land managers in optimum management techniques to mitigate diffuse pollution. 9.Wetland BAP Group should strengthen links with agricultural sector representatives. 10.Extend Landcare Project to cover Frome, Fleet and Wey catchments once lessons have been learnt from the Avon process (the timescale for these projects is longer term) 	<p>DWT, FWAG, RSPB, EN, EA</p> <p>DEFRA</p> <p>EA, Purbeck BAP</p> <p>EA to lead</p> <p>Landowners, EN, DEFRA, EA, FWAG, Dorset AONB</p>

(continued overleaf)

FRESHWATER MANAGEMENT

Impacts	Current action	Evaluation	Recommended action	Potential partners
Policy and legislation cont . . .				
Water quality – diffuse pollution (from development)	Various area based projects promoting Sustainable Urban Drainage Systems (SUDS) e.g. Bourne Stream Project,	SUDS not always adopted due to concerns over long term management and responsibility	<p>11. Establish local agreements on the policy of adoption and management of SUDS, and ensure these are incorporated into legal planning agreements.</p> <p>12. Promote sustainable drainage systems as a pre-requisite for new developments.</p> <p>13. Retro-fit sustainable drainage systems for existing problem sites</p> <p>14. Ensure subsequent maintenance of new SUDS within planning agreements.</p>	<p>Water Companies, EA, LA's.</p> <p>EA, LA's, Water Companies DWT, EN</p> <p>LA's, EA</p> <p>LA's</p>
Water levels	<p>Water Level Management Plans (WLMPs) being prepared and some implemented on wetland SSSIs. Avon Valley Project Officer appointed to facilitate the process in that area.</p> <p>Purbeck Biodiversity Project progressing WLMPs on non SSSIs in Frome Valley</p>	<p>Implementation slow. Will require significant resources to implement. Delays due to conflict resolution.</p> <p>Statutory process only covers SSSI wetlands.</p> <p>Lack of financial incentives for landowners. No cross-correlation between WLMP and agri-environment schemes.</p> <p>Progressing well.</p>	<p>15. Identify options for more field workers to progress the facilitation of WLMPs</p> <p>See action 17</p> <p>16. Lobby locally, and through regional and national contacts, to link agri-environment schemes and WLMPs</p> <p>17. Identify and prioritise further non designated sites for WLMPs</p>	<p>DWT, FWAG, RSPB, EN, DEFRA, Dorset AONB</p> <p>DWT, FWAG, RSPB, EN</p> <p>Through Wetland Working Group</p>
Water resources	<p>Regulatory framework (licencing procedures)</p> <p>Wessex Water, and Bournemouth & West Hants Water campaign for wise use of water resources and demand management</p> <p>Developing Catchment Abstraction Management Strategies (CAMS) on Stour, Frome, Piddle, West Dorset and Avon.</p>	<p>The regulatory framework is effective based on current knowledge.</p> <p>Implementation most effective in specific areas. Effectiveness of campaign is being assessed on the Bourne as part of the Bourne Stream Initiative.</p> <p>Not formally BAP led. Only able to address biodiversity issues if relevant information is made available to prove the case.</p>	<p>18. Ensure new information developed through Catchment Abstraction Management Strategies (CAMS) process is fed back into the licensing system</p> <p>19. If deemed successful, extend campaign to other targeted areas.</p> <p>20. Influence the local CAMS process to achieve biodiversity gains by raising biodiversity issues where information is available to prove the case. In the absence of information seek to set up monitoring</p>	<p>EA, Purbeck BAP</p> <p>Water Companies</p> <p>EN, RSPB, DWT, EA</p>

FRESHWATER MANAGEMENT

Management					LA's, EA, DWT, EN Dorset AONB
Habitat loss, isolation and fragmentation	Protective policies e.g. statutory designated sites, local development control process	Habitat loss greatly reduced, but continuing problem with isolation leading to untenable management. Natural Area based strategic approach towards reversing fragmentation and isolation ('Rebuilding Biodiversity') in progress Consultee advice on effects of development (e.g. EA/ DWT/ EN) not always taken Successful, but securing funding for posts is a challenge New entry level scheme will make it possible for all farms to be in a scheme	21. Building on current initiatives set up working groups at district council level to identify strategic opportunities for reversing fragmentation and isolation through habitat creation, thus enabling more sustainable management. 22. All funding/ potential funding partners to review resources for advisory posts 23. Ensure structure and implementation of schemes achieves maximum wildlife benefits	ALL DEFRA	
Invasive non native species	Ad hoc control of mink and invasive plants (Himalayan Balsam, Japanese Knotweed, Giant Hogweed, Crassula helmsii and other aquatics) Garden Centre Project to raise awareness of invasive plant problem. DEFRA Review of legislation	Not being successfully controlled Important education project. Success to be determined Being progressed nationally	24. Develop a strategic water vole recovery programme, through mink control, targeting the Frome and Avon. 25. Develop strategic invasive plant control programmes with district councils. 26. Repeat project every 3-5 years if successful.	EA , DWT EA, LA's DWT/ EA	All involved
Research and Monitoring	Ad hoc surveys progressing by various organisations EU LIFE River Avon Project	Not currently being done in a co-ordinated way Providing new information on BAP species	27. Work with small and medium sized enterprises (SMEs) to raise awareness of sustainable water issues and promote water saving devices		
BAP species distribution and requirements (continued overleaf)					

FRESHWATER MANAGEMENT				
Impacts	Current action	Evaluation	Recommended action	Potential partners
Education and Awareness Raising				
Lack of awareness of water issues	Wessex Water Wise Use campaign (as above)	Works most effectively as an area based initiative	See action no. 19	EA, EN
	Bourne Stream Initiative – free water saving devices from Bournemouth and West Hants Water			
	SW Waste Minimisation Group aim to raise awareness of water issues			
Prepared in consultation with: The Wetland BAP Group and DEFRA				
Key to abbreviations:				
DEFRA – Department of the Environment, Food and Rural Affairs				
DWT – Dorset Wildlife Trust				
EN – English Nature				
EA – Environment Agency				
FWAG – Farming and Wildlife Advisory Group				
LA's – Local Authorities				
RSPB – Royal Society for the Protection of Birds				



2.4.1 COASTAL AND FLOODPLAIN GRAZING MARSH

National Lead Partner: English Nature

Habitat description

Coastal and floodplain grazing marsh is defined as wet grassland that has been formed by the claiming of coastal or floodplain wetland, usually through the enclosure by sea walls or river banks, and is poorly drained by tidal channels or an interconnected grid of ditches which are typically subject to locked drainage through tidal or fluvial influences.

Their fertile soils support intensive farmland and there is a marked contrast between seasons. In winter, the flooded fields are home to wading birds, whilst in summer, the wildlife interest is confined to water-filled ditches which can be rich in plants and invertebrates.

Historically, Dorset contained about 5300ha of lowland wet grassland. Since about 1900 about 200ha (12%) of Dorset's grazing marsh has been destroyed through loss of the tidal channels or ditch network from development, waste disposal and re-flooding. Parts of the remaining area have changed from grassland to reed swamp. In coming years some grazing marsh around the Harbours will be vulnerable to loss from rising sea level and the unsustainable nature of some sea walls.

Managing such a complex system is a delicate balance of soil, water, wildlife and farming.

Habitat status criteria	Dorset status
UK Priority habitat	✓
SAC/SPA interest feature in Dorset	✓
Important for UK BAP species	✓
Local decline	Stable
Proportion of UK habitat in Dorset	Modest
Local threat	Direct
Local rarity	Scarce
Potential to extend/ link habitat fragments	High
Survey priority	Medium

Key at Appendix C

Specific Impacts

- Agricultural intensification/ inappropriate management.
- Impact of sea level rise.
- Monitoring of habitat condition.
- Public access management.

Objectives

- 1 Maintain the extent and quality of existing habitat.
- 2 Restore grazing marsh from drier, semi-improved or improved grassland or arable land.
- 3 Secure appropriate physical and hydrological conditions to re-establish the river floodplain function and habitats wherever feasible.
- 4 Continue to conduct research and monitoring which will improve our knowledge and understanding of associated key species.
- 5 Provide opportunities for education, access and awareness raising initiatives.

Natural Area Targets: see Appendix D

COASTAL AND FLOODPLAIN GRAZING MARSH

Impacts	Current action	Evaluation	Recommended action	Potential partners
For generic issues affecting this and other agricultural habitats refer to the Programme of Action for Agriculture				
Management				
Agricultural intensification/ Inappropriate management	SSSI Management Agreements and agri-environment schemes aim to reduce dairy farming impacts and increase extensive farming practices.	Relatively small areas in conservation management agreements. Very localised outside the Avon Valley Special Area of Conservation (SAC).	1. Lobby for increased financial incentives for WLMPs	All interested organisations
	Management advice to extend grazing marsh targeted to Frome Valley, Piddle, Avon and Poole Harbour margins.	Non compliance with agreements to undertake positive works (e.g. drain clearance)	2. Dorset Wetland BAP Group to develop ecological targets for restoration of grazing marsh	Wetland BAP Group
	Avon Valley Liaison Group help co-ordinate work on grazing marsh within the Avon Valley	Dorset Wetlands BAP Group set objectives and co-ordinate all biodiversity work on floodplain grazing marsh in Dorset.	3. Seek to ensure Water Level Management Plan (WLMP) implementation increases uptake of ESA Tier C in the Avon Valley ESA	DEFRA, EA
	Dorset Grazing Animals Project set up by English Nature for SSSIs	Progressing. Targets set.	4. Wetland Group to review the success of this project for grazing marsh, and recommend further action.	Wetland BAP Group
	Experimental management of water levels through EN and RSPB site management around Poole Harbour.	Effectiveness not evaluated. Appropriate breeds of livestock hard to obtain (through decline in beef farming)	(Refer to Freshwater Management Programme of Action for water levels)	
Impact of sea level rise	Investigation into managed retreat options around Poole Harbour through Shoreline Management Plan (SLMP)	To date failed to encourage breeding wading birds. Insufficient resources available to implement project effectively.	5. Work with SLMP process to ensure where managed retreat options are considered, mitigating freshwater habitat will be created	EN, EA, RSPB, LA's
Research and monitoring				
Monitoring of habitat condition	Bird counts are used to establish condition of grazing marsh in key areas EN Condition Assessments for SSSIs completed.	Decrease in breeding wading birds on the River Avon. Wading birds now extinct in the Frome corridor. Most grazing marsh is in unfavourable condition.	6. Condition Assessment criteria to be rolled out for SNCIs.	DWT

(continued overleaf)

COASTAL AND FLOODPLAIN GRAZING MARSH				
Impacts	Current Action	Evaluation	Recommended action	Potential partners
Education and awareness raising				
Public access management	Public access managed on site by site basis	Demand for increased public access on rivers such as the Avon has to be managed or will lead to further wading bird decline.	7. Work with landowners towards a strategic approach to access on grazing marsh, to balance adequate access and wildlife protection.	EN, EA, DWT, RSPB, LA's
Key to potential partners: DEFRA – Department of the Environment, Food and Rural Affairs DWT – Dorset Wildlife Trust EA – Environment Agency EN – English Nature LA's – Local Authorities RSPB – Royal Society for the Protection of Birds				



2.4.2 CHALK STREAMS

National Lead Partner: Environment Agency

Habitat description

The chalk stream habitat consists of the watercourse itself and the immediate surrounding land, or riparian zone. This definition allows for overlap with habitat plans for other closely associated habitats, such as wet woodland.

Dorset contains a significant amount of the national resource and nationally important examples of chalk streams and winterbournes. Chalk streams are flowing water courses, and in their natural state they are dynamic systems, continually modifying their form. In many cases their ability to function naturally and to create new habitat has been reduced by historical management, flood protection schemes etc. Chalk streams are intensively used to convey flood water and discharges, to provide water for public, agricultural and industrial use and are a popular recreational resource.

In Dorset chalk streams are often indicated by an abundance of Stream Water crowfoot *Ranunculus penicillatus* var. *pseudofluitans*. They provide valuable habitat for migratory fish, otter and white-clawed crayfish.

Due to the complexity of issues affecting them co-ordinated action is vital to ensure that their wildlife value is conserved and enhanced.

Habitat status criteria	Dorset status
UK Priority habitat	✓
SAC/SPA interest feature in Dorset	✓
Important for UK BAP species	✓
Local decline	Stable
Proportion of UK habitat in Dorset	Significant
Local threat	Indirect
Local rarity	Scarce
Potential to extend/ link habitat fragments	Low (intrinsically linked)
Survey priority	Medium

Key at Appendix C

Specific Impacts

- Degraded channel morphology.
- Fisheries.
- Non-native species.
- Weed cutting.
- Lack of knowledge of winterbournes.
- Lack of understanding of status and requirements of key species.
- Lack of public awareness of issues affecting chalk streams.

Objectives

- 1 Maintain and enhance the characteristic biological diversity and natural features of all chalk rivers and streams, including their winterbourne stretches.
- 2 Restore to a favourable condition chalk rivers which have been adversely affected by physical modification.
- 3 Maintain existing water quality in all chalk rivers and streams and improve where possible.
- 4 Continue to conduct research and monitoring which will improve our knowledge and understanding of chalk rivers and associated key species.
5. Provide opportunities for education, access and awareness raising initiatives at appropriate riverside sites.

CHALK STREAMS

Impacts	Current action	Evaluation	Recommended action	Potential partners
For generic issues affecting this and other agricultural habitats refer to the Programme of Action for Agriculture				
Management				
Degraded channel morphology and habitat degradation	Localised restoration advice through River and Wetlands Project and Environment Agency (EA).	Demonstration events have been held on the Piddle and Cerne. No evaluation has been undertaken on their effect.	1. Building on current activity, set up demonstration sites for restoration works and evaluate their effectiveness.	DWT, EA
	Geomorphology study on Avon currently being completed	Await results prior to implementation	2. Consider undertaking a geomorphological audit of all chalk streams to assess degradation, and prioritise restoration works dependent on recommendations of the Avon study.	EA, EN
	Restoration and management projects in association with fisheries	Good liaison with a range of fishing organisations. Large number of beneficial schemes, but a lack of resources for implementation	3. Build on current liaison work to increase the number of partnership projects	EA, EN, LA's, DWT
	Small-scale restoration projects on Allen, Frome and Avon. EN grant aid available on SSSIs	Effective, but limited by resources	4. Implement a wider scale restoration project targeting the Frome, Avon and Allen. Investigate cost effective methods.	EA, LA's, DWT
	Most flood defence works screened for impacts on biodiversity by EA	Flood defence works by local authorities are not screened by EA. More opportunities for enhancement of biodiversity should be sought	5. LAs to seek advice on biodiversity impacts of flood defence works and implement advice given	EA, LA's
	EU LIFE Project – Preparation of conservation strategy for the River Avon	Complete. Bid in progress (named AFTERLIFE) to gain resources to implement strategy	6. Hold seminars to raise awareness of best practice for sensitive land drainage works.	EA, DWT, EN
Fisheries	National Trout and Grayling Strategy	Will be implemented from 2003	7. Link with target area for Countryside Stewardship restoration	EA
Non-native species	EA South Wessex Crayfish strategy developed	EA looking at funding possibilities	8. EA to progress	EA
Weed cutting	Review of weedcutting on Frome, Piddle and Avon	EA/ EN progressing	9. Complete review and implement, including monitoring of future works	EA, EN
Research and monitoring				
Lack of knowledge of winterbournes	None		10. Start research on status and extent of winterbournes to determine conservation value and appropriate management	EA, EN
Lack of understanding of status and requirements of key species	EU LIFE Project investigating species water quality requirements.	Ongoing	11. Apply results when known	EA

CHALK STREAMS

Research and monitoring cont . . .				
Lack of understanding of status and requirements of key species cont . . .	Some survey work to determine locations of key species. LOCAR research on Frome and Piddle	No strategic evaluation of gaps in knowledge Producing information	12. See action 27 in Programme of Action for Freshwater Management 13. Apply results where known	EA, EN
Education and awareness raising				
Lack of awareness	EA involved in Community action projects to promote chalk streams (management and awareness) Living streams pack developed by Dorset Biodiversity Initiative for use by community groups. West Dorset District Council Dorset Downs and Valleys Project.	Effective where project has been requested from community Used sporadically. Progressing.	14. Keep in place framework 15. Update the Living Streams Pack for use by the Bourne Stream Initiative 16. Integrate biodiversity awareness into project	EA Bourne Stream Initiative EA, WDDC
Key to abbreviations: DWT – Dorset Wildlife Trust EN – English Nature EA – Environment Agency LAs – Local Authorities WDDC – West Dorset District Council				



2.4.3 REEDBEDS

National Lead Partner: English Nature

Habitat description

Reedbeds are wetlands dominated by, but not necessarily composed purely of, stands of the common reed *Phragmites australis*. It includes areas of reeds that are both in freshwater and brackish water habitats.

Nationally, reedbeds are a rare habitat, and this is reflected in Dorset. But despite its scarcity Dorset's reedbeds are important for many scarce invertebrates, and several uncommon birds.

Ownership of reedbeds is largely sympathetic to the conservation of this habitat in Dorset.

Habitat status criteria	Dorset status
UK Priority habitat	✓
SAC/SPA interest feature in Dorset	✓
Important for UK BAP species	✓
Local decline	Stable
Proportion of UK habitat in Dorset	Modest
Local threat	Indirect
Local rarity	Rare
Potential to extend/ link habitat fragments	Medium
Survey priority	Medium

Key at Appendix C

Specific Impacts

- Lack of appropriate management (e.g. siltation/ deer grazing).
- Water levels.
- Lack of information on resource.

Objectives

- 1 Maintain the extent and quality of existing reedbed habitats.
- 2 To ensure that all important sites are managed primarily for their nature conservation interest.
- 3 To ensure existing reedbed is linked to other semi-natural habitats.
- 4 Continue to conduct research and monitoring which will improve our knowledge and understanding of associated key species.
- 5 Provide opportunities for education, access and awareness raising initiatives.

Natural Area Targets: See Appendix D

REEDBEDS

Impacts	Current action	Evaluation	Recommended action	Potential partners
For generic issues affecting this and other agricultural habitats refer to the Programme of Action for Agriculture				
Management				
Lack of/ appropriate management (e.g. siltation/ deer grazing)	Reedbed group in Purbeck carried out survey and management recommendations through Poole Harbour Study Group.	Good work. Management recommendations yet to be implemented.	1. Purbeck Reedbed Group to continue to meet to ensure progression of recommendations. Actions to include management pathfinder meeting for owners and managers in Poole Harbour.	Poole Harbour Study Grp, Fleet Study Grp, Purbeck BAP Project, RSPB, Ilchester Estates
	Radipole Lake and Lodmoor are part of successful Bittern LIFE Bid. Works will involve enhancing existing reedbeds by removing excess sediment build up.	LIFE works will significantly improve the quality of 15 ha reedbed within Radipole Lake and subject to lease a further 3ha at Lodmoor.		
	Lodmoor reedbed enhancement / creation.	Successful creation of an additional 13 ha of new connecting reedbed with open pools.		
	Preparation of a Countryside Stewardship 10 year management plan for the Abbotsbury Reedbeds. Application by the Ilchester Estates.	Good - will provide long term positive management for the Abbotsbury Reedbeds		
	Most reedbeds in the county are covered by statutory designation, including Abbotsbury, Christchurch Harbour, Lodmoor, Poole Harbour, Radipole and West Bexington.	Too early to assess.		
Water Levels	WLMP completed for Radipole Lake and in preparation for Lodmoor. West Bexington sluice now funded, to be installed 2002.	Radipole Lake WLMP has provided clear prescriptions / requirements for the management of the site's water levels. Successful implementation will ultimately determine success.	2. Ensure completion and successful implementation of Lodmoor WLMP. Maintain good communication links between the site managers and operating authority.	RSPB, EN, NT Bournemouth University EN, RSPB, W&PBC
Research and monitoring				
Lack of information (continued overleaf)	Poole Harbour survey	Only covers reedbeds in that area	3. Expand Purbeck reedbed group to cover all reedbeds in county, for the purpose of assessing status and management requirements	Dorset Biodiversity Partnership Purbeck BAP, RSPB

REEDBEDS				
Impacts	Current Action	Evaluation	Recommended action	Potential partners
Education and awareness raising				
	Production of Poole Harbour Reedbed leaflet	Good, however circulation has to date been limited.	4. Place leaflet on Poole Harbour Study Group website. Circulate leaflets to partner organisations.	Poole Harbour Study Group
Key to abbreviations: EN –English Nature NT – National Trust RSPB – Royal Society for the Protection of Birds				

2.4.4 FENS

National Lead Partner: English Nature

Habitat description

Fens are rare in Dorset. They are formed over peaty soil that receive calcareous groundwater. Two main types are present: those formed in floodplains and those formed around seepages and along springlines.

Within SSSIs and SNCIs there is an estimated 40 ha of fen in Dorset, which accounts for most of the county's resource. Individual fens are small and scattered and usually occur within or on the periphery of other habitats of nature conservation value, including heathland, neutral grassland and wet woodland.

Many of the fens within the Dorset Heath Natural Area can be accommodated within the management of the larger heathland areas. Other areas of fen exist in river valleys and are an important element for consideration in river management strategies. There also remain a few important fen habitats within the agricultural landscape where conservation effort needs to be specifically targeted.

Habitat status criteria	Dorset status
UK Priority habitat	✓
SAC/SPA interest feature in Dorset	
Important for UK BAP species	✓
Local decline	Decline
Proportion of UK habitat in Dorset	Low
Local threat	Direct
Local rarity	Rare
Potential to extend/ link habitat fragments	Medium
Survey priority	Medium (to update existing audit)

Key at Appendix C

Specific Impacts

- Over-abstraction of ground water.
- Lack of, or inappropriate management due to isolation.
- Perceived value of fens as a 'wet and wasteful patch' within the farm.

Objectives

- 1 Maintain the extent and quality of existing fen habitat.
- 2 Restore degraded fens, and encourage their management as an integral unit of the surrounding land.
- 3 Encourage the re-creation of fen habitat, preferably abutting important fen sites, and within its hydrological unit.
- 4 Continue to conduct research and monitoring which will improve our knowledge and understanding of associated key species.
- 5 Provide opportunities for education, access and awareness raising initiatives.

Natural Area Targets: See Appendix D

FENS				
Impacts	Current action	Evaluation	Recommended action	Potential partners
For generic issues affecting this and other agricultural habitats refer to the Programme of Action for Agriculture				
Management				
Over-abstraction of ground water	Environment Agency Regional Sustainable Abstraction Programme (RSAP) schemes being implemented to protect key fen sites. Other actions as for chalk streams?	Progressing		
Lack of, or inappropriate management due to isolation	Agri-environment schemes DERC Fen Inventory and Audit lists all fens and their status Dorset Grazing Animals Projects set up	Fens need to be managed as an integral part of their surroundings. This is not always possible through agri-environment schemes. Agri-environment review may help. EN and DWT SNCI Project are using this information to target management advice	1. Wetland group to assess further priorities for action (restoration/ recreation) from DERC fen audit and implement on priority sites	Wetland BAP Group
Research and monitoring				
	DERC Fen Inventory and Audit lists all fens and their status		2. Monitor all fen sites regularly to check condition.	DWT, EN
Education and awareness raising				
Perceived value of fens as a 'wet and wasteful patch' within the farm	Advice on nature conservation value and potential agri-environment payments provided by various land management advisors			
Key to abbreviations: DWT – Dorset Wildlife Trust EN –English Nature				

2.5 TOPIC ACTION PLAN: Marine and Coastal Issues

Saw wrack by Bridget Betts

Introduction

The coastline and marine waters of Dorset support a wealth of wildlife including 16 UK priority BAP habitats. The coastline is also of global geological importance and is a World Heritage Site. While the habitats on land are well documented and protected, the marine habitats and wildlife are generally more poorly understood, and there are fewer protected sites.

The effects of exploitation of the marine environment, through fishing, energy exploration, pollution, shipping and recreation are only now beginning to be fully realised. There is mounting evidence that increasing pressures from human activities have led to significant modification of some habitats and changes in the distribution of some species.

Because of the complexity of the human and natural interactions in the coastal and marine environment, their management has been supported in Dorset by the Dorset Coast Forum, and was part of the 'EU Demonstration Programme on Integrated Management in Coastal Zones 1997-1999'.

The agriculture and freshwater management sectors impact on coastal and marine habitats through their influence on water quality. In addition maritime biodiversity is affected by issues outside UK jurisdiction, such as climate change and the EC Common Fisheries Policy. These issues will require UK input into international mechanisms.

A Vision for the coasts and seas of Dorset (from the 'England Biodiversity Strategy', DEFRA 2002.)

'A biologically diverse sea and coastline which reconciles human needs with the conservation and restoration of semi-natural habitats as far as possible through natural processes'.

Aims

- To maintain and promote the recovery of the biodiversity of the sea and coast.
- The inclusion of biodiversity conservation into the activities of all those involved in coastal and marine use and development.

Impacts

- Water quality – diffuse and point source pollution.
- Impact of commercial fishing.
- Loss and fragmentation of habitat due to development, agricultural improvement, sea level rise.
- Loss of habitat and change in natural coastal process due to inappropriate coastal defence.
- Invasive species.
- Change in marine fauna induced by climate change.
- Lack of knowledge on the extent and quality of habitats.
- No current highly protected areas.
- Lack of public awareness of marine and coastal issues.

The following table recommends key actions to address these impacts.

Headline Indicators

- Condition of coastal SSSIs, SNCIs and Natura 2000 sites
- Progress towards Dorset priority habitat targets (to be determined)
- Populations of marine and coastal birds
- Others to be determined

MARINE AND COASTAL MANAGEMENT

Impacts	Current action	Evaluation	Recommended action	Potential partners
Policy and legislation				
Water quality – diffuse pollution	<p>The need for a 'Landcare Project' on the Fleet and River Wey has been established</p> <p>Sustainable urban drainage systems (SUDS)</p> <p>Poole Harbour and the Fleet are designated Nitrate Vulnerable Zones</p>	<p>Progress awaiting the Avon Landcare project. Lessons will be learnt and then rolled out across these other sites. (long term)</p> <p>See Freshwater Management Section (Water quality – diffuse pollution)</p> <p>See Freshwater Management Section (Water quality – diffuse pollution)</p>	<p>1. Await rollout of wider Landcare Project – refer to freshwater management table</p> <p>2. Identify other coastal areas (especially buffer zones) that would benefit from this approach, and seek funding.</p> <p>3. Ensure Dorset involvement with CYCLONE project if funded (a project including an investigation into the fate of diffuse pollution.)</p> <p>See Freshwater Management Section (Water quality – diffuse pollution)</p> <p>See Freshwater Management Section (Water quality – diffuse pollution)</p>	<p>JDMC EN</p> <p>EN, Wildlife trusts, EA</p>
Water quality – point source pollution	<p>Review of discharge consents that may affect European protected sites. Stages 1 and 2 complete</p> <p>Water Companies 'clean up' measures as a result of Asset Management Plans (AMPs)</p> <p>Pollution contingency plans taking account of sensitive marine habitats</p>	<p>Only covers habitats that are within European protected sites</p> <p>See Freshwater Management Section – (Water Quality – point source pollution)</p> <p>Good work undertaken on contingency plans led by Dorset County Council but focuses on the coast and inshore.</p>	<p>4. Continue to progress to stages 3 and 4 concentrating on priority sites first.</p> <p>See Freshwater Management Section (Water Quality – point source pollution)</p> <p>5. Investigate the impact of pollution spills on offshore marine habitats especially with regard to dispersant use.</p>	<p>EN, EA</p> <p>EN, EA</p> <p>Dorset Environment Group</p>
Impact of commercial fishing	<p>JDMC supporting the 6-12 mile limit in Review of Common Fisheries Policy by lobbying and responding to consultations</p> <p>Integration of biodiversity concerns into fisheries policies - Sea fisheries committees, Lyme Bay reef project</p> <p>Regulation of mariculture through sea fisheries committee</p>	<p>Lack of understanding of the impact of mariculture on the marine environment</p>	<p>6. Further investigate the idea of identifying marine protected areas, and trial a pilot study</p> <p>7. Use JDMC database to review literature on this area and find out about sustainable mariculture strategies in other counties.</p>	<p>JDMC</p> <p>JDMC</p>

(continued overleaf)

MARINE AND COASTAL MANAGEMENT

Impacts	Current action	Evaluation	Recommended action	Potential partners
Management				
Loss and fragmentation of habitat through development	Protective policies for existing habitat eg statutory designated sites, local development control process.	<p>Consultee advice (eg EA/EN/DW/T) not always taken.</p> <p>No strategic approach to biodiversity enhancement. (Poole Harbour Steering Group provides a framework for coordination)</p> <p>Conservation bodies not always consulted on development that may impede the landward transition of habitats.</p>	<p>8.Seek inclusion of a 'biodiversity policy' in the revision of local authority strategies and policies.</p> <p>9.Where there are gaps set up and work with working groups at an appropriate level (eg Harbour or District council level) to identify strategic opportunities for reversing fragmentation and isolation of coastal habitats</p> <p>10.Seek biodiversity enhancement through World Heritage Site management plan (eg cliff top grassland)</p> <p>11.Ensure SSSI consultation areas sent to local authorities are appropriate.</p> <p>12.Seek inclusion of a policy for allowing coastal processes to occur unimpeded through local planning authorities</p>	<p>Dorset Coast Forum</p> <p>European Marine Sites steering groups, harbour groups</p> <p>Dorset County Council</p> <p>EN</p> <p>LPA's</p>
Loss due to agricultural improvement	<p>Countryside Stewardship Scheme offers payments to manage for wildlife on cliff top, sand dune and intertidal habitats.</p> <p>Landowner liaison Officers offer advice and help with grant applications for management, restoration and re-creation of habitats, including coastal habitats (eg Fleet & Wey Catchment project)</p>	<p>Limitations to biodiversity through agricultural support framework. Habitat loss, fragmentation and change attributed to agricultural intensification still occurring</p> <p>Landowner liaison is successful, but securing funding for posts is a challenge and posts are often too short term.</p>	<p>13.Increase awareness of farmers of CSS and how change in farming practises can lead to increases in biodiversity through Landowner liaison posts.</p> <p>14.All funding/potential funding partners to review resources for advisory posts</p>	FWAG, Landowner liaison posts, NT
Loss of habitat and change in natural coastal processes due to inappropriate coastal defence	<p>Planning consultation process</p> <p>Biodiversity considered in coastal Strategies and Shoreline Management Plans</p>	<p>Conflicts of interests eg high property values and nature conservation designations</p> <p>Adverse impact of past coastal protection measures</p>	<p>15.Increase the awareness of coastal engineers to biodiversity issues, e.g. presentations to coastal engineering groups and factsheets</p> <p>16.Remove old coastal defences (e.g. debris left on the foreshore).</p>	EN
Invasive species	Some monitoring undertaken within European marine sites	<p>Monitoring not undertaken in other areas where there may be conflict with priority habitats.</p> <p>Established invasive species would be prohibitively expensive to remove</p>	<p>17.Extend surveys of species that potentially may adversely affect native species.</p> <p>18.Campaign to control the spread of newly introduced invasive species eg Undaria by asking regular users eg fisherman, divers to send records of sightings to DERC.</p>	<p>JDMC</p> <p>JDMC</p>

MARINE AND COASTAL MANAGEMENT

Management cont . . .				
Loss of habitat through sea level rise	Some modelling undertaken to predict habitat losses (e.g. through Shoreline Management Plans, Poole Bay and Christchurch Bay Coastal Strategy) Issues and possible actions needed discussed through the Dorset Coast Forum	Limited by uncertainty as to the changes that are expected	19. More research focussing on effects on priority habitats and species 20. Seek opportunities for coastal retreat to compensate for losses of intertidal habitats 21. Promote Coastal Habitat Management Plans (ChMPs)	JDMC Coastal strategies, EN EN
Change in habitat/species distribution arising from climate change	Some distribution information available for some species and habitats	Information is limited.	22. Support coastlink centres to establish monitoring of environmental and biological parameters. 23. Promote a sighting scheme to feed into the marine database. 24. Produce maps annually to enable visualisation of changes in fisheries	JDMC JDMC SSFC
Research and Monitoring				
Lack of knowledge on extent and quality of habitats	Seabed mapping of topography and biotopes (habitats) Surveys for priority species, including maerl, seagrass and Sabellaria NBN South West pilot - mapping coastal and marine habitats digitally		25. Set up further survey and monitoring programmes after establishing priorities. 26. Increase awareness of recreational users (eg diving clubs through Seasearch) of the priority habitats and encourage records to be sent to DERC. 27. Further research into the ecological requirements of habitats and the impact of human activities	JDMC JDMC Study Groups
No current highly protected areas	None		28. Promote justification to wider audience and identify possible options within a regional network.	JDMC/EN
Education and Awareness Raising				
Lack of awareness of issues	Marine database at DERC provides accessible information User group involvement (eg Seasearch, Dolphin watch)	Very good at providing information to visitors. Need to make better links to the local community and users to influence local behaviour and activities.	29. Secure long term funding and promote the database as a planning tool. Establish regular updates for wide distribution to regulators and the public. 30. Ensure compatibility with JNCC Marine Recorder Better dissemination to recorders. 31. Better dissemination to recorders	JDMC JDMC JDMC
(continued overleaf)				

MARINE AND COASTAL MANAGEMENT

Impacts	Current action	Evaluation	Recommended action	Potential partners
Education and Awareness Raising cont. . . .				
Lack of awareness of issues	<p>Marine Conservation Officer activities - e.g. Demonstration stands at Weymouth fish festival / Innovative ideas to 'spread the message' (eg fish & chip wrapper, seafood cook book etc)</p> <p>Coastlink centres</p> <p>Marine awareness officer activities eg rockpool rambles</p>	(see previous page)	32. Produce biodiversity factsheets of where habitats are and their sensitivities for regulators (eg coastal engineers, Local Planning Authorities) and the public.	(see previous page)
<p>Prepared in consultation with the Dorset Joint Dorset Marine Committee</p> <p>Key to abbreviations:</p> <p>DWT – Dorset Wildlife Trust EA –Environment Agency EN –English Nature FWAG – Farming and Wildlife Advisory Group JDMC – Joint Dorset Marine Committee LPA's – Local Planning Authorities NT- National Trust SSFC – Southern Seas Fisheries Committee</p>				



2.5.1 GROUP STATEMENT FOR COASTAL HABITATS

N.B. For habitat status information see table 5
For Natural Area targets see Appendix D.

Maritime cliff and slope

National Lead Partner: Countryside Council for Wales

Habitat description

The cliffs and undercliffs of Dorset's coastline comprise soft and hard cliffs. They vary between massive vegetated land slips, high chalk cliffs and pinnacles, grey shales and clays, and sheer limestone faces and ledges.

The habitats that develop on the cliffs and slopes are varied, and some of the most natural anywhere in the county. Cliff ledges provide important nesting sites for breeding colonies of birds; of particular note are the guillemot and puffin colonies on Durlston ledges. There is a high proportion of bare ground compared with other habitats, which is utilised by many specialised plant and invertebrate species. Other habitats include maritime grassland, flushes, scrub and supralittoral rock.

The coastal cliffs expose a complete section through the upper Jurassic to Cretaceous rock succession, which has earned the site World Heritage status.

Habitat Objectives:

- 1 Maintain the extent and quality of the existing resource.
- 2 Increase the extent of eroding cliffs over time, by allowing natural processes of cliff mobility to continue.
- 3 Restore natural vegetation where possible, i.e. through removal of non-native species.
- 4 Increase and link areas of clifftop semi-natural habitats.
- 5 Continue to survey and monitor to improve our knowledge of the habitat.
- 6 Raise awareness of the wildlife value of the habitat.

Coastal Sand dunes

National Lead Partner: Scottish Natural Heritage

Habitat description

Sand dunes are entirely a coastal phenomenon in Dorset. They comprise windblown sand formations that are both stable and shifting, and their associated slacks, grassland and scrub.

The only significant sand dunes in Dorset occur at Studland in Purbeck, which comprise approximately 204 hectares of dune and associated habitat. This acidic dune system supports a large area of dune heath and is also the only dune system in south central England to support any dune wetland (i.e. open water, mire, swamp, wet heath and wet woodland).

The habitat's importance for invertebrates, reptiles (e.g. sand lizard, smooth snake) and vegetation is reflected in its designations as National Nature Reserve and candidate Special Area of Conservation. Relict dunes occur at Sandbanks, Hengistbury and Mudeford.

Habitat Objectives:

- 1 Maintain the extent and quality of the existing resource.
- 2 Restore dune grassland and heaths that are degraded.
- 3 Continue to survey and monitor to improve our knowledge of the habitat.
- 4 Raise awareness of the wildlife value of the habitat.

Coastal Vegetated Shingle

National Lead Partner: English Nature

Habitat description

Shingle is defined as sediment with particle sizes in the range 2-200mm. It is a globally restricted coastal sediment type with few occurrences outside north-west Europe, Japan and New Zealand.

Coastal vegetated shingle occurs widely around England's coast, however, large shingle beaches where areas of shingle become stabilised and support vegetation are relatively few. Chesil Bank is one such exceptional shingle structure. It is an internationally important breeding ground for Little Terns, and shingle deposited above high water mark may become colonised by specialist vegetation. Small areas of vegetated shingle also occur in Poole Harbour.

Habitat Objectives:

- 1 Maintain the extent and quality of the existing resource.
- 2 Encourage reinstatement of wetland vegetation on shingle sites (where appropriate), by scrub clearance and grazing.
- 3 Prevent, where possible, further exploitation of, or damage to, existing sites through human activities, through visitor management.
- 4 Improve the condition of vegetated shingle structures that are degraded/damaged.
- 5 Continue to survey and monitor to improve our knowledge of the habitat.
- 6 Raise awareness of the wildlife value of the habitat.

Sabellaria alveolata reefs

National Lead Partner: English Nature

Habitat description

Sabellaria alveolata reefs are formed by the honeycomb worm *Sabellaria alveolata*, a polychaete which constructs tubes in tightly packed masses with a distinctive honeycomb-like appearance. Reefs are mainly found on the bottom third of the shore attached to a variety of hard or mixed substrates, with an adjacent area of sand for reef building. The reefs bind the underlying substrate, stabilising previously mobile boulders and may increase the diversity of the site. The worm may form large reefs up to several metres across and a metre deep.

Habitat Objectives:

- 1 Maintain the extent and quality of the existing resource.
- 2 Survey to determine the full extent of the habitat.
- 3 Ensure water quality is sufficient to maintain habitat.
- 4 Re-establish/ restore *sabellaria alveolata* reefs where they were formerly present.
- 5 Continue to survey and monitor to improve our knowledge of the habitat.
- 6 Raise awareness of the wildlife value of the habitat.

Mudflats

National Lead Partner: Environment Agency

Habitat description

Mudflats are intertidal, soft sediment habitats created by deposition of silts and clays in low energy coastal environments, such as estuaries. Characterised by high biological productivity and abundance of organisms, they provide important feeding and resting areas for migrant and wintering wildfowl. Extensive intertidal mudflats occur in Poole Harbour, an internationally important site for wildfowl and waders. Sea level rise presents a major threat to mudflats.

Habitat Objectives:

- 1 Maintain the extent and quality of the existing resource.
- 2 Ensure water quality is sufficient to maintain habitat.
- 3 Continue to survey and monitor to improve our knowledge of the habitat.
- 4 Raise awareness of the wildlife value of the habitat.

Coastal saltmarsh

National Lead Partner: Environment Agency

Habitat description

Coastal saltmarshes comprise the upper, vegetated portions of intertidal mudflats, lying approximately between mean high water neap tides and mean high water spring tides.

Saltmarshes are restricted to sheltered locations in estuaries, and the development of saltmarsh vegetation is dependent on the presence of intertidal mudflats. They are an important resource for wading birds and wildfowl.

In Dorset by far the largest area of salt-marsh is found around Poole Harbour, with small stands present by the Fleet, at Lodmoor and in Christchurch Harbour. Dorset has suffered less from salt-marsh reclamation than other southern counties, and the upper salt-marsh zone with transitions to reedbed, woodland, mire and grassland is well represented.

Habitat Objectives:

- 1 Maintain the extent and quality of the existing resource.
- 2 Restore areas of degraded saltmarsh through managed retreat where feasible.
- 3 Continue to survey and monitor to improve our knowledge of the habitat.
- 4 Raise awareness of the wildlife value of the habitat.

Sheltered muddy gravels

National Lead Partner: None

Habitat description

A coastal/marine habitat that can be subtidal and/or intertidal in nature and found in a variety of salinities. It consists of a variety of mixed sediments ranging from fine silt and mud to pebbles and cobbles.

Habitat Objectives:

- 1 Maintain the extent and quality of the existing resource.
- 2 Continue to survey and monitor to improve our knowledge of the habitat.
- 3 Raise awareness of the wildlife value of the habitat.

Littoral Chalk

National Lead Partner: English Nature

Habitat description

Littoral and sublittoral chalk is a geological habitat. It is relatively friable (crumbly) and easily eroded. In Dorset this habitat occurs on coastlines formed of calcareous rock, including those areas of chalk subject to inundation by the tide.

In general littoral rock tends to be colonised by algae in wave-sheltered conditions, and by limpets, barnacles and mussels as wave-exposure increases. Chalk and limestone can support rock boring species. There is a distinct zonation of species down the shore that principally reflects the degree of immersion by the tide. Littoral rock areas in the south west also tend to be richer in species than similar habitat in the north and east of Britain.

Littoral rock habitats are widespread around the UK, but vary in species richness depending on geology and wave exposure.

Littoral and sublittoral chalk is represented by one UK Habitat Action Plan

Habitat Objectives:

- 1 Seek to retain and where possible increase the existing extent of littoral (and sublittoral) chalk habitats unaffected by coastal defence and other engineering works.
- 2 Continue to survey and monitor to improve our knowledge of the habitat.
- 3 Raise awareness of the wildlife value of the habitat.

Specific Impacts on coastal habitats

- Losing habitat to coastal squeeze.
- Impact of recreational activities.
- Debris from pleasure craft and fishing vessels.
- Dredging – removal of important sediment source from the system.
- Identifying and progressing sites for habitat re-creation.
- Monitoring changes in extent and quality of coastal habitat.
- The effects of estuary dynamics.
- The effects of grazing management.
- Extent, quality and loss/change of mudflat resource.
- Lack of understanding of sediment exchange processes.
- Awareness of the value of coastal habitats – flood defence, fisheries etc.

Table 5 Coastal Habitat Status

Biodiversity habitat	UK Priority habitat	SAC/SPA interest feature in Dorset	Important for UK BAP species	Local decline	Proportion of UK habitat in Dorset	Local threat	Local rarity	Potential to extend/ link habitat fragments	Survey priority
Maritime cliff and slope	✓	✓	✓	Stable	Modest	Indirect & Direct	Scarce	✓	Medium
Coastal vegetated shingle	✓	✓	✓	Stable	Significant	Indirect	Scarce	N/A	Medium (map vegetated)
Coastal sand dunes	✓	✓	✓	Stable	Modest	Indirect	Rare	N/A	Medium
Littoral chalk	✓			Unknown	Unknown	Indirect & Direct	N/A	N/A	Medium
<i>Sabellaria alveolata</i> reefs	✓		✓	Unknown	Unknown	Indirect & Direct	N/A	N/A	Medium
Coastal saltmarsh	✓	✓	✓	Stable	Modest	Indirect	Rare	N/A	Medium (poole Harbour done)
Mudflats	✓	✓	✓	Unknown	Modest	Indirect & Direct	N/A	N/A	Medium
Sheltered muddy gravels	✓			Unknown	Unknown	Indirect	N/A	N/A	High

For key see Appendix C

COASTAL HABITATS

Coastal Saltmarsh	<i>Sabellaria alveolata</i> reefs	Coastal vegetated shingle		
Mudflats	Littoral chalk	Maritime cliff and slope		
Sheltered Muddy Gravels	Sand dunes			
Impacts	Current Action	Evaluation	Recommended Action	Potential Partners
For further impacts and actions affecting coastal habitats refer to the Marine and Coastal Issues table				
Policy and legislation				
Losing habitat due to coastal squeeze	Shoreline Management Plans		1. Ensure land behind saltmarsh habitat is included in designated site consultation areas 2. Prepare a Coastal Habitat Management Plan (CHaMPS) for Poole Harbour	EN EN
	Management			
Impact of recreational activities	Poole Harbour Aquatic Management Plan Fencing off areas of sand dune at Studland Fleet European Marine Sites (EMS) Steering Group to implement measures to reduce trampling effects Sea cliff and slope – working with local clubs, e.g. rock climbing guidance, and signs requesting walkers to stick to paths		3. Review how recreational activities may be affecting priority habitats.	Harbour Groups
Debris from human activities (e.g. pleasure craft)	Waste disposal facilities provided at ports and harbours. Annual beach clean e.g. Earthkind beach cleans at Poole Harbour		4. Promote biodegradable products through a publicity campaign and posters at key sites.	JDMC
Dredging – may remove important sediment source from the system	Consult with statutory bodies on licences.	Need a more strategic approach.	5. Develop a clearer understanding of sediment process cells through coastal strategies and CHaMPS 6. Investigate the potential and need to create new mudflats using dredging material	EN, coastal engineers

COASTAL HABITATS

Management cont ...				
Identifying and progressing sites for habitat re-creation	Poole Bay coastal strategy identified possible sites in Poole bay for saltmarsh recreation	Saltmarsh creation will result in loss of important freshwater habitat.	7. Identify new sites for freshwater habitat re-creation before implementing saltmarsh creation programme through CHaMPs 8. Utilise agri-environment schemes for restoration and re-creation of eligible coastal habitats	EN DEFRA, FWAG, DWT, RSPB, EN, NT
Research and Monitoring				
Monitoring changes in the extent and quality of coastal habitats	Poole Harbour study group project on saltmarsh extent and Christchurch Bay strategy studies of Christchurch Harbour. <i>Sabellaria alveolata</i> survey	<i>S. alveolata</i> study needs repeating	9. Extend monitoring of saltmarsh to other areas 10. Repeat survey of <i>Sabellaria alveolata</i> survey in 5 years time. 11. Monitor impact of current grazing practices on saltmarsh e.g. Christchurch Harbour	EN JDMC BBC
The effect of estuary dynamics	Poole Bay and Christchurch Bay coastal strategies may improve understanding of sediment processes		12. Increase understanding of the effect of estuary dynamics through coastal engineering studies.	Coastal engineering groups
Extent, quality and loss/change of mudflat resource	Poole Harbour European marine site study group projects and Shoreline Management Plan coastal strategy projects	Further understanding still required to evaluate the resource in the wider environment	13. Encourage further studies to be commissioned through coastal engineering studies	EN, coastal engineering groups
Education and Awareness Raising				
Lack of understanding of sediment exchange processes	Input into coastal engineering strategies by English Nature		14. Increase understanding of sediment exchange processes through further studies	Coastal engineering groups
Awareness of value of coastal habitats – flood defence, fisheries etc	Coastal engineering strategies and groups Chesil and the Fleet SAC Management Plan aims to raise awareness		15. Biodiversity factsheets of location of habitats and sensitivities to be sent to local planning authorities and coastal groups etc.	JDMC
<p>Key to abbreviations:</p> <p>BBC – Bournemouth Borough Council DWT – Dorset Wildlife Trust EN – English Nature FWAG – Farming and Wildlife Advisory Group</p> <p>JDMC – Joint Dorset Marine Committee LPA's – Local Planning Authorities NT- National Trust</p>				



2.5.2 GROUP STATEMENT FOR MARINE HABITATS

N.B. For habitat status information see Table 6.

The majority of marine habitats do not have UK or Natural Area targets. The exceptions are Seagrass beds and Saline lagoons. These targets are in Appendix D.

Common objectives for the priority marine habitats are listed below:

Objectives:

- 1 Maintain the extent and quality of marine priority habitats.
- 2 Assess feasibility of restoration of damaged habitats.
- 3 Improve understanding by promoting research and survey.
- 4 Promote awareness amongst public, especially divers.

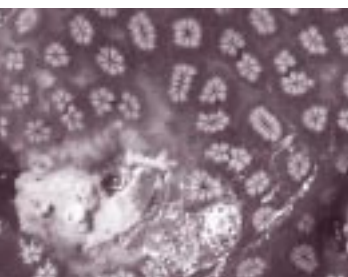
Saline lagoons

National Lead Partner: English Nature

Habitat description

Saline lagoons are natural or artificial bodies of saline water wholly or partially separated from the adjacent sea. They retain a proportion of their sea water at low tide and may develop as brackish, fully saline or hyper-saline water bodies. Lagoons are one of the priority habitats listed under the EC Habitats Directive.

The Fleet is the largest saline lagoon in Britain. Sea water percolates through the shingle influencing the salinity along its length, and a low freshwater input results in saline conditions throughout most of the lagoon. Where there are tidal rapids within the lagoon, rich sponge communities are found, and elsewhere there are important Seagrass (*Zostera*), and *Ruppia* beds.



Sabellaria spinulosa reefs

National Lead Partner: English Nature

Habitat description

Sabellaria spinulosa reefs comprise dense subtidal aggregations of this small, tube-building polychaete worm. *Sabellaria spinulosa* can act to stabilise cobble, pebble and gravel habitats, providing a consolidated habitat for epibenthic species. They are solid, (albeit fragile), massive structures at least several centimetres thick, raised above the surrounding seabed, and persisting for many years. As such they provide a biogenic habitat that allows many species to become established. Significant *Sabellaria spinulosa* reefs have been recently recorded 4km east of Swanage pier.

Seagrass beds

National Lead Partner: Environment and Heritage Service

Habitat description

Seagrass (*Zostera* spp) is one of the few flowering plants (angiosperm) adapted to living fully submerged in marine conditions. Seagrass beds develop in fairly sheltered intertidal and shallow subtidal areas on sand and muds. Extensive beds may form which stabilise the substratum and provide attachment for associated species. Three species of *Zostera* occur in the UK, with *Zostera marina* predominating in the sublittoral zone. The shelter provided by seagrass beds makes them more important nursery areas for fish, and they also provide a food source for wildfowl. Seagrass beds are also commonly referred to as *Zostera* or eelgrass beds.

Sublittoral sand and gravels

National Lead Partner: English Nature

Habitat description

This habitat is permanently submerged and the particle structure found in this habitat ranges from mainly sand, through various combinations of sand and gravel, to mainly gravel with occasional pebbles.

In the infralittoral zone, this habitat is characterised by animal communities which are influenced by a high degree of disturbance from wave action. Although supporting a wide range of species, these habitats typically include fairly robust infaunal species of amphipods, bivalves and polychaetes. Gravel and sand habitats in the circalittoral zone (> 20m) are less wave disturbed.

Tidal Rapids

National Lead Partner: Countryside Council for Wales
Environment and Heritage Service

Habitat description

Tidal rapids are defined as 'strong tidal streams resulting from a constriction in the coastline at the entrance to, or within, an enclosed body of water'. The passage of the tidal stream is usually shallow and there can be good clarity. These factors, together with a constantly renewed food source from each new strong tidal stream results in characteristic marine communities rich in diversity.

Maerl beds

National Lead Partner: Scottish Natural Heritage

Habitat description

Maerl is a collective term for certain coralline red algae that grow unattached on a clean, tidally swept seabed, and may accumulate to form maerl beds. Maerl is slow growing, but over long periods its dead calcareous skeleton can accumulate into deep deposits (an important habitat in its own right), overlain by a thin layer of pink, living maerl.

Maerl beds have considerable conservation value because they support a rich associated fauna. The coralline algae *Phymatolithon calcareum*, and *Lithothamnion coralloides* form an important maerl bed off Handfast Point. This is the most easterly known location in the English Channel.

They are a fragile habitat, easily damaged by human activity.

Sublittoral chalk

National Lead Partner: English Nature

Habitat description

Sublittoral chalk consists largely of rocky reefs which fringe the coastline, particularly adjacent to hard cliffs and shores. They support a range of plants and animals, depending on a range of factors such as turbidity of water, depth, tidal streams and substratum stability.

A number of species occur which are only present in south west England, including the pink sea-fan *Eunicella verrucosa*.

Mud habitats in deep water

National Lead Partner: Scottish Natural Heritage

Habitat description

Mud habitats in deep water occur below 20-30m in the UK's marine environment. The relatively stable conditions often lead to the establishment of communities of burrowing fauna. Of particular interest in Dorset, Portland Harbour contains important communities of the fragile sea pen *Virgularia mirabilis*, a species more commonly associated with the deep muds of Scottish sea lochs.

Mytelis edulis beds

Local priority habitat

Habitat description

The species *Mytelis edulis* form mussel beds off Durlston Head and Portland Bill. They are biogenic reefs supporting a wide diversity of marine invertebrates and fish, and are therefore of high biodiversity importance locally.

Brittlestar beds

Local priority habitat

Habitat description

Extensive brittlestar beds have recently been found approximately 2km off Kimmeridge Bay, to the west of Swanage. The species forming these beds is *Ophiothrix fragilis*. The number of individual brittlestars involved is likely to be in the thousands. Brittlestar beds are not true biogenic reefs as they do not form a solid structure. However, they are infrequently encountered and are of high biodiversity importance locally.

Specific impacts on priority marine habitats

- Habitat loss through; damage from fishing gear, maintenance and capital dredging operations, dumping of dredgings, recreational activities.
- Lack of knowledge of extent of habitat.
- Lack of public awareness.

Table 6 Marine Habitat Status									
Biodiversity habitat	UK Priority habitat	SAC/SPA interest feature in Dorset	Important for UK BAP species	Local decline	Proportion of UK habitat in Dorset	Local threat	Local rarity	Potential to extend/link habitat fragments	Survey priority
Seagrass beds (<i>Zostera marina</i>)	✓	✓	✓	Unknown	Significant	Indirect & Direct	N/A	N/A	Medium (Survey Poole Harbour)
Tidal rapids	✓	✓		Unknown	Unknown	Indirect	N/A	N/A	Medium
Sublittoral chalk	✓			Unknown	Unknown	Indirect	N/A	N/A	Medium
<i>Sabellaria spinulosa</i> reefs	✓		✓	Unknown	Significant	Indirect & Direct	N/A	N/A	High
Saline lagoons	✓	✓	✓	Stable	Significant	Indirect	N/A	N/A	Low
Mud in deep water	✓			Unknown	Unknown	Indirect & Direct	N/A	N/A	Medium
Maerl beds	✓		✓	Unknown	Modest	Indirect	N/A	N/A	High/ Ongoing
<i>Mytelis edulis</i> beds				Declining	Unknown	Direct & Indirect	N/A	N/A	N/A
Brittlestar beds				Unknown	Unknown	Indirect & Direct	N/A	N/A	High
Sublittoral sands and gravels	✓	✓		Unknown	Unknown	Indirect & Direct	N/A	N/A	High

Key at Appendix C

MARINE HABITATS

Maerl Beds	Mud in Deep Water	Tidal rapids	Brittlestar beds	
<i>Sabellaria spinulosa</i>	Sublittoral Sands and Gravels	Saline Lagoons		
Seagrass Beds	Sublittoral chalk	<i>Mytilus edulis</i> beds		
Impacts	Current action	Evaluation	Potential Recommended action	partners
For further impacts and actions affecting coastal habitats refer to the Marine and Coastal Issues table				
Management				
Habitat loss through damage from fishing gear	Input into fisheries committee and representative of fisheries committee on JDMC	Not adequate protection to prevent degradation of these habitats from recreational, fisheries and dredging activities	<div>1. Inform dredging operators, and sea fisheries committees, Harbour Authorities, ship masters and other relevant bodies of the location of these habitats and their sensitivities through 'factsheets'</div> <div>2. Raise concerns and influence the policy of these regulators to minimise damage to these habitats e.g. through attending sea fisheries committee meetings.</div> <div>3. Review of existing fisheries to minimise impact to priority habitats.</div> <div>4. Southern Seas Fisheries Committee to inform JDMC of new fishing activities</div> <div>5. Identify feasibility of designating areas of priority marine habitats as highly protected areas.</div>	JDMC SSFC, EN SSFC SSFC, JDMC JDMC
Habitat loss through maintenance and capital dredging operations	Environmental bodies have an input into licensing of dredging	English Nature not always consulted. A more strategic approach is required to assess potential direct and indirect impacts	<div>6. Foster better links with DEFRA over licences to dredge</div> <div>7. Review of existing disposal sites to minimise impact on priority habitats</div>	EN, CEFAS JDMC
Habitat loss through dumping of dredgings	Some management of dredging and dumping takes place through groups such as Poole Harbour European Marine Site (EMS) Steering Group, Chesil & the Fleet EMS Steering Group.		<div>8. Identify other areas where management is required to avoid damage to sensitive habitats (eg seagrass) and species (eg sea pens) through appropriate regulators.</div>	JDMC
Habitat loss through recreational activities	National Trust and English Nature leasing seabed from Crown Estate at Studland for better management of recreational activity here.			

87

MARINE HABITATS

Impacts	Current Action	Evaluation	Recommended action	Potential partners
Research and Monitoring				
Lack of knowledge of the extent of habitat	Seasearch diving surveys University of Southampton surveying extent of seagrass beds (Poole to Portland) and dead and live maerl by diver surveys and towed video. Condition monitoring of sea grass beds in the Fleet University of Southampton survey of mud in deep water in Portland Harbour	Further surveys still required to assess the extent of these habitats and monitor condition. Useful data gained from surveys. However surveys need to be extended to other areas and habitats and better dissemination of information is required.	9. Use reported sightings and remote sensing to decide where to survey. 10. Engage Seasearch and University surveyors in long term survey and monitoring programmes. 11. Disseminate information through marine database 12. Send out newsletter to surveyors and regulators on new surveys undertaken and gaps still requiring filling.	DERC, Uni of Southampton/ Seasearch JDMC JDMC JDMC
Lack of understanding of how activities may be affecting priority habitats.			13. Review of how these activities may be affecting priority habitats	JDMC, CEFAS, SSFC
Education and Awareness Raising				
Lack of public awareness	Awareness of divers through participating in University of Southampton surveys The Fleet Warden Chesil and The Fleet cSAC Management Plan	Need to increase this awareness further to other divers and fisherman.	14. Increase awareness of fisherman of the importance of these habitats through sea fisheries committee. 15. Increase awareness of divers through clubs. 16. Ask divers and fisherman to report species sightings to DERC.	SSFC JDMC JDMC, SSFC
Key to abbreviations: CEFAS Central Fisheries Advisory Service DERC – Dorset Environmental Records Centre EN –English Nature JDMC – Joint Dorset Marine Committee LPA's – Local Planning Authorities SSFC – Southern Seas Fisheries Committee				

2.6 HABITAT STATEMENT FOR: Wood pasture, Parkland and Veteran Trees

Beech and oak leaves by Graham Hatherley

2.6 HABITAT STATEMENT FOR WOOD PASTURE, PARKLAND AND VETERAN TREES

National Lead Agency: English Nature

Habitat description

These habitats are the relicts of historic land management systems, and represent a vegetation structure rather than a particular plant community. Typically this structure consists of large, open-grown or high forest trees (often pollards) at various densities, in a matrix of grazed grassland, heathland and/or woodland floras. The presence of large old trees is a key characteristic of this habitat type, and many plant and insect species are dependent on them.

The processes that led to the creation of these habitats have long since ceased and most of Dorset's parklands have been converted to arable farmland. However, the few remaining sites, such as Melbury Park, are of international importance. Wood pasture is particularly important for bats.

Veteran trees can also occur in other habitats, such as hedgerows, but the extent of the habitat is poorly known. Wayside trees are typically found alongside roads and tracks or in improved pasture, sometimes as relicts of former 18th or 19th century landscaped parks. They are subject to natural eutrophication and support an epiphytic flora of national importance.

The Biodiversity Management Group has proposed that a Habitat Action Plan is prepared for this habitat. No table of actions has been prepared as part of this Strategy.

Habitat status criteria	Dorset status	Key at Appendix C
UK Priority habitat	✓	
SAC/SPA interest feature in Dorset		
Important for UK BAP species	✓	
Local decline	Stable (mostly before the 1930's)	
Proportion of UK habitat in Dorset	Modest	
Local threat	Direct	
Local rarity	Rare	
Potential to extend/ link habitat fragments	High	
Survey priority	Medium	

Impacts

- Loss of habitat through conversion to arable and other land uses.
- Lack of or inappropriate management, e.g.
 - under/overgrazing, fertiliser application etc
 - unnecessary removal of veteran trees and wood decay for safety or tidiness reasons.
 - lack of continuity of management has led to a skewed age structure of trees, with a lack of younger trees creating a gap in appropriate habitat conditions.
 - damage to trees and roots from soil compaction and erosion.
- Loss of trees through disease and storm damage.
- Pollution leading to damage of epiphytic communities and changes to soils.
- Isolation and fragmentation of remaining habitat in the landscape.
- Changes to groundwater levels leading to water stress and tree death.
- Lack of awareness of the biodiversity importance of wood pasture.

Objectives

- 1 To establish the current extent of wood-pasture, parkland and veteran tree interest in Dorset.
- 2 Maintain the known extent and quality of wood pasture, parkland and veteran trees, focusing particularly on the conservation of veteran trees where they occur.
- 3 To restore derelict wood pasture and parkland to favourable condition.
- 4 To initiate the creation and expansion of wood pasture, parkland and veteran tree replacements in appropriate areas.
- 5 To promote and raise awareness of the biodiversity importance of this habitat.

2.7 HABITAT STATEMENT FOR: Lowland Heathland

Extract of a photo by Imogen Davenport

2.7 HABITAT STATEMENT FOR LOWLAND HEATHLAND

National Lead Agency: English Nature

Habitat description

Lowland heathland is dominated by dwarf ericoid shrubs (heathers) along with species of gorse on poor soils, typically sands and gravels. It is rare within a European context making the Dorset Heaths one of our most important habitats. Major changes over the last 250 years (85% of the original area has been converted to agriculture, forestry and urban development) have severely fragmented the remaining heathland sites. These losses have been compounded by a lack of management leading to invasion of scrub and trees. The loss of this traditionally managed landscape has led to a significant decline in many species dependent on heathland.

Although lowland heathland is the key priority BAP habitat there are important concentrations of other BAP priority habitats in the wider heathland landscape, including mires and fens, acid grassland, wood pasture and wet woodland. Valley mires are particularly well-represented and the Dorset Heaths together with the New Forest support the vast majority of the remaining area in Europe. Recent grazing initiatives on the heaths have also benefited the mire systems. Many BAP priority species are dependent on this diverse habitat assemblage.

The Dorset heathlands have been the subject of a concerted, determined and sustained conservation effort stretching back to the 1970s. Many organisations are involved and there are many complex issues to tackle. These span all sectors – development, agriculture and forestry are all important. All of the key issues are being addressed and there has been significant recent progress in most areas. However, much remains to be done to secure the long term conservation of these heathlands.

For a fuller treatment of Dorset heathland conservation issues readers are referred to the Dorset Heathland Strategy (DCC 1990) and the Dorset Heaths Natural Area Profile (EN 1998).

The Biodiversity Management Group have proposed that a Habitat Action Plan is prepared for this habitat. This Habitat Statement will form the basis of the action plan.

Habitat status criteria	Dorset status
UK Priority habitat	✓
SAC/SPA interest feature in Dorset	✓
Important for UK BAP species	✓
Local decline	Stable
Proportion of UK habitat in Dorset	Significant
Local threat	Direct
Local rarity	Scarce
Potential to extend/ link habitat fragments	High
Survey priority	Medium

Key at Appendix C

Impacts

- Heathland fragmentation.
- Planning and urban development.
- Minerals issues.
- Environment Agency Consents for discharges and abstractions.
- Restoration management.
- Grazing management.
- Urban heathland issues.
- Species issues.
- Monitoring and research.
- Public perception of heathland.

Objectives

- 1 Restore functioning heathland ecosystems by:
 - linking heathland fragments through re-establishment of heathland or other appropriate habitats.
 - integrating the management of heathland with that of surrounding land.
 - re-introducing the essential elements, such as extensive grazing, of a heathland ecosystem.
- 2 Prevent direct loss of existing heathlands from development or other factors.
- 3 Restore sites that have too much tree and scrub cover.
- 4 Restore heathland wetlands affected by drainage or nutrient enrichment.
- 5 Address problems of urban heathlands in line with the objectives of the recommendations of the Bern Convention appraisal.
- 6 Establish monitoring systems that will detect long-term deleterious trends in heathland systems.
- 7 Integrate species conservation into habitat management programmes.

Natural Area Targets: see Appendix D

LOWLAND HEATHLAND

Impacts	Current Action	Evaluation	Recommended action	Potential partners
Policy and legislation				
Heathland fragmentation	<p>Re-creation opportunities through lease, purchase or other mechanisms have been taken as they arise partly through successful applications to HLF.</p> <p>The issue of securing heathland on FE land – the biggest opportunity - through provision of woodland elsewhere is being explored as part of the HEH project</p> <p>Heathland is being re-established on some 350ha of grassland mainly funded through the re-creation tier of Countryside Stewardship.</p>	<p>Progress has been made through a number of mechanisms but there remain huge unrealised opportunities.</p> <p>The implications of the study on the potential for heathland re-creation facilitated by new woodland need to be evaluated.</p> <p>Some of the best opportunities involve large privately owned estates. There needs to be a more attractive package that will convince landowners that large scale heathland re-creation and management is a sustainable and viable long term option.</p>	<ol style="list-style-type: none"> 1. Continue with current actions. Promote the Dorset heathlands as a perfect opportunity for national or regional projects such as Lifescapes and Rebuilding Biodiversity 2. Pursue heathland and replacement woodland ideas. 3. Seek to establish large-scale project with the necessary funding to achieve substantial change. 4. Promote and target Countryside Stewardship at key landholdings. 	<p>Biodiversity Projects FE, MoD DEFRA, EN VCO's</p>
Planning and urban development	<p>Representations made at Regional planning, structure plan and local plans levels against excessive housing growth. Urban development that would impact heathlands opposed at public inquiries.</p> <p>Research begun on the impacts of public pressure generated by urban development on key heathland species and on the relationship between development and people's use of the heaths.</p>	<p>Most of the new development around the urban and urban fringe heathlands will be infill. Policies need to be developed that will prevent the inevitable increase in density creating additional urban effects on heaths</p> <p>There may also be opportunities for planning gain associated with new development.</p>	<ol style="list-style-type: none"> 5. Develop planning policies to tackle infill by preventing increases in housing density close to heaths and providing alternative natural greenspace. Through the planning process, aim to prevent the unsustainable expansion of the Poole/Bournemouth conurbation. 6. Oppose individual development proposals that would have significant impacts on key sites. 7. Work to steer development away from sites with potential for heathland re-creation or alternative natural greenspace. 	<p>LA's EN VCOs</p>
Minerals issues	<p>Reviews under the Habitat Regulations and ROMP currently in progress on most sites where existing planning permissions overlap designated sites</p>	<p>There are several complex heathland review cases and there is potential for gains associated with these cases</p>	<ol style="list-style-type: none"> 8. Seek to prevent damage to heathlands through Habitat Regs and Review of Minerals Permissions (ROMP) reviews and other appropriate mechanisms. 9. Work with the minerals industry to secure conservation gains and aim to improve techniques of habitat restoration 	<p>DCC EN Minerals industry</p>
EA consents	<p>Review of consents for discharges and abstractions under Habitat Regulations are currently in progress.</p>	<p>The process has not yet got to the stage of focussing on those consents that are of real concern.</p>	<ol style="list-style-type: none"> 10. Seek remedial action where consents are damaging heathland wetlands. 	<p>EA EN</p>

LOWLAND HEATHLAND

Restoration management; trees and scrub; wetlands	<p>Habitat management projects – the Hardy's Egdon Heath (HEH) project (2000-2005) is partnership project of 13 organisations involved in managing the Dorset heaths. The project is funded by HLF - they are putting £2.7 million over 5 years with a £1.3million contribution from partners.</p> <p>Negotiation of new agreements - Wildlife Enhancement Scheme (WES), stewardship, or leases/purchase. Some 80% of the heathlands are now under the control of conservation organisations, local authorities, MoD and FE. Much of the remaining privately owned land is managed under WES agreements.</p>	<p>There has been much recent progress both through HEH and managements. Long-term funding for habitat management remains an issue particularly for MoD sites.</p> <p>Management is not likely to be possible on a few sites without the use of powers in the Countryside and Rights of Way Act 2000.</p> <p>Ditching has damaged a number of heathland mire systems.</p>	<p>11. Secure maximum return from remaining years of HEH.</p> <p>12. Seek to secure long-term funding streams for habitat maintenance.</p> <p>13. Secure management on the few currently unmanaged sites.</p> <p>14. Instigate programme of mire restoration through infilling of ditches.</p>	Hardy's Egdon Heath partners EN
Grazing management	<p>16 grazing units covering 2500ha of the Dorset heathlands have been established since 1994. Most of the easier opportunities for establishing grazing have been realised and current action involves trying to secure extensive grazing on some of the more difficult sites where cattle grids are needed.</p>	<p>The model of extensive grazing over large areas at low intensity and with cattle and ponies has proved a successful one. There are links between the establishment of large viable grazing units and de-fragmentation and most units would benefit from being bigger and including a greater variety of other habitats eg grassland and woodland. In the medium to long term it may be increasingly difficult to find graziers and the establishment of natural grazing systems using de-domesticated stock could be an alternative. There have been difficulties with provision of cattle grids on some roads.</p>	<p>15. Continue to pursue individual extensive grazing schemes.</p> <p>16. Seek to included agricultural land and woodland as appropriate in heathland grazing units or to use the land to provide back up for heathland grazing. Link existing units where possible.</p> <p>17. Investigate potential for the establishment of natural grazing on selected sites using de-domesticated stock.</p>	EN DEFRA DWT HCT RSBP FE MoD LA's
Urban heathland issues (continued overleaf)	<p>Current action is concentrated around an urban heath LIFE project - 'Combating urban pressures degrading European heathlands in Dorset'. It is a 4 year project (2001-2005) aimed at reducing the effects of urbanisation on the Dorset's urban heathlands funded by the European Commission with contributions from the nine local partners, including the police and fire service.</p>	<p>Management of urban heathlands, particularly wardening, is expensive and current levels are sustained by short-term funding from the urban heaths LIFE project</p> <p>There is a need to increase the robustness of urban heathland sites through better management of surrounding land, either directly for nature conservation or to relieve people pressure on the existing heath</p>	<p>18. Build on successful partnerships with the police and fire service</p> <p>19. Seek secure long-term funding for urban heath management.</p> <p>20. Bring land adjacent to urban heaths into appropriate management</p>	LAs Fire service Police

LOWLAND HEATHLAND

Impacts	Current Action	Evaluation	Recommended action	Potential partners
Management cont . . .				
Species issues	An increasing number of recommendations for species management are resulting from ongoing research and survey	These recommendations have mostly not been integrated into general habitat management prescriptions. Communication between groups representing different species could be improved.	21. Species concerns need to be satisfied without over-complicating general habitat management prescriptions.	EN RSPB HCT DWT
Research and monitoring				
Monitoring and research	Much monitoring and recording is ongoing	Monitoring and research is not coordinated in a structured framework.	22. Seek better targeting and coordination of heathland research and survey. Establish coordinated system of reporting BAP actions.	DERC EN VCOs
Long-term monitoring	Little research on the Dorset heaths at present targeted on potential long-term changes.	Slow insidious changes to heathland through atmospheric deposition, fragmentation or climate change may not currently be picked up.	23. Seek to instigate appropriate monitoring.	EN EA CEH
Education and awareness raising				
Public perception of heathland	Measures have been taken to address opposition from some members of the public to heathland management on specific sites and at a generic level as part of the HEH project	Despite this there remains significant public opposition to heathland management – particularly tree clearance.	24. Address issues fully at a site level using consultation protocol developed through HEH project.	All heathland managers
<p>Key to abbreviations:</p> <div> <div>CEH – Centre for Ecology and Hydrology</div> <div>DEFRA – Department of the Environment, Food and Rural Affairs</div> <div>DERC – Dorset Environmental Record Centre</div> <div>EA – Environment Agency</div> <div>EN – English Nature</div> <div>FE – Forest Enterprise</div> <div>HCT – Herpetological Conservation Trust</div> <div>MoD – Ministry of Defence</div> <div>LA's – Local Authorities</div> <div>RSPB – Royal Society for the Protection of Birds</div> <div>VCO's – Voluntary Conservation Organisations</div> </div>				

3 COMMON THEMES AND ACTIONS

Introduction

Certain themes run through many of the individual UK Action Plans. This section identifies these 'Common Themes' and proposes key actions to address them. These themes apply not only to priority habitats and species, but also to all biodiversity in the county, the rare and common alike.

Action plans for common themes are organised under the following headings;

- raising awareness and involvement
- data and information
- land-use planning

3.1 Common Theme: Raising awareness and involvement

Introduction

Understanding of biodiversity conservation is crucial to the success of biodiversity programmes throughout the UK. Biodiversity and nature conservation should not just be the concern of a relatively small number of individuals and organisations. The natural beauty of the landscape is widely appreciated, but there is less understanding of the vulnerability of many habitats and species. This highlights a clear need to raise awareness and concern.

Messages about biodiversity conservation need to reach decision-makers in key sectors of society, and individuals. Messages need to be simple, relevant, easily accessible and sufficiently compelling to elicit changes in people's attitudes towards the environment.

The successful implementation of action for biodiversity requires involvement from various sectors. Having a partnership approach means that the workload can be shared and a wide range of skills and resources used. It also ensures that there is a shared commitment to and ownership of the process, which in turn should provide a commitment to implementing the strategy, and put biodiversity conservation on a more long-term, sustainable footing.

Objectives

- 1 Develop awareness and understanding of biodiversity issues in key sectors and encourage involvement of these sectors in conserving biodiversity.
- 2 Raise awareness of the Dorset Biodiversity Strategy and its objectives.
- 3 Promote involvement of members of the Dorset Biodiversity Partnership in implementing the action set out in the Dorset Biodiversity Strategy.

Current factors affecting awareness of biodiversity

There are a number of factors hindering progress in raising biodiversity awareness;

- Poor understanding in some sectors of what biodiversity actually means.
- A perceived lack of relevance to people's everyday lives.
- A lack of integration of biodiversity into other policies and strategies.
- Limited co-ordination between biodiversity professionals leading to inconsistent, or weakened biodiversity messages.

Current Action

There are many initiatives aimed at raising awareness and increasing involvement in biodiversity conservation. Many of these do not use the term 'biodiversity', but more familiar terms such as 'nature conservation' or 'environmental education'. There is not room here to list all the activities, but the following gives a flavour of the range and type of activities taking place in Dorset;

- Landowner liaison projects
- Formal environmental education
- Media work and press releases on wildlife issues
- Community environmental projects
- Interpretation activities e.g. walks and talks, displays

Also, Dorset County Council is running a 'Working for Wildlife' project aimed at establishing more Local Nature Reserves within the rural county and encouraging community participation. With funding from English Nature's Wildspace! Programme, the project is targeting population centres where access to natural open space is limited, and is encouraging communities to come forward with their favoured areas, including pocket parks, disused railway lines and small former quarries.

Action	Potential partners
<ul style="list-style-type: none">• Promote the consideration of biodiversity issues in the development or review of policies or strategies (e.g. Best Value reviews /Community Strategies) as a means of raising awareness and securing better support.	Dorset Biodiversity Partnership
<ul style="list-style-type: none">• Maintain awareness, momentum and commitment within the partnership through regular meetings and exchange of information (e.g. newsletter)	Dorset Biodiversity Partnership
<ul style="list-style-type: none">• Develop projects to raise awareness and increase involvement of key sectors such as community groups, business, land managers, educational and health institutions, and local government.	Dorset Biodiversity Partnership
<ul style="list-style-type: none">• Maximise the use of the broadcast media, and other means of communication, to disseminate information on biodiversity to the widest possible audience	Dorset Biodiversity Partnership
<ul style="list-style-type: none">• Develop a website and mobile display to promote the Strategy	Dorset Biodiversity Partnership

3.2 Common Theme: data and monitoring

Introduction

Our ability to make the best possible decisions on action for biodiversity depends upon the availability of relevant and accessible data. Information requirements include:

- Monitoring of rare species populations that occur on very few sites, as well as widespread species which are found throughout the county
- Assessment of the condition of designated sites and SNCI's
- Monitoring progress towards biodiversity targets
- Assessment of the effect of agri-environment schemes.

Objectives

- 1 Ensure quality data on habitats and species are accessible.
- 2 Establish a co-ordinated programme for survey of species and habitats, to update and improve our knowledge of Dorset's natural environment.
- 3 Establish a monitoring programme to measure future changes in the biodiversity of Dorset and to assess the impact of the Dorset Biodiversity Strategy.

Current factors affecting biodiversity data and monitoring

1 Collecting records:

- Some major groups of plants and animals are poorly represented, mainly due to a small number of experts available to identify them
- Records are not evenly spread across geographical areas or time
- A lack of co-ordinated and strategic approach to record collection
- Insufficient levels of resources devoted to survey and collection of data.

2 Storing and retrieving biological records:

- Lack of adequate storage and retrieval systems
- Insufficient level of resources (funding and staff).

3 Recording and monitoring:

- Systems have not developed as rapidly as nature conservation policies and activity, i.e there is a need to assess the effects of conservation management and to understand how biodiversity is changing as a consequence.



Current Action

National

The production of the UK Biodiversity Action Plan in 1994 gave added impetus to the search for a country-wide system of recording biodiversity information that was responsive to local needs. The result is the National Biodiversity Network (NBN). The NBN is a national consortium of public agencies and voluntary organisations which aims to establish a publicly accessible web-based network across the UK linking national and local custodians of biodiversity data.

English Nature is developing the Biodiversity Action Reporting System (BARS). It will support the planning, monitoring and reporting requirements of national and local BAPs, and is available on the UKBAP website from mid 2003.

National schemes are in place for monitoring particular species groups, such as birds, butterflies, moths, bats etc, and are undertaken at local level, mainly through volunteers. There are also a number of initiatives for habitat surveillance including Common Standards for SSSI assessment, River Habitat surveys, Countryside Survey and agri-environment scheme monitoring.

Regional and Local

English Nature's NBN South-west Pilot has been running since April 2001. It aims to provide a working model of the NBN at a regional level to be rolled out to other regions later. The Dorset Environmental Records Centre (DERC) is involved in this pilot and forms a crucial link in the network of Local Records Centres that form part of the NBN. As part of the NBN pilot project DERC is digitising data for all UK priority habitats occurring in Dorset.

DERC also utilises databases and a Geographical Information System (GIS) to store a wide variety of information on the county's wildlife resource, both terrestrial and more recently marine.

Existing information on Dorset's wildlife is gathered by a range of individuals and organisations. Surveying and monitoring is undertaken by conservation organisations and environmental consultants, voluntary natural history societies and groups, and individual experts. Each tends to keep records for their own purposes. Unless this information is passed on to DERC (and much of it is) it is generally not accessible to others.

Action	Potential partners
<ul style="list-style-type: none"> Ensure sufficient financial resources for the maintenance and development of DERC by encouraging users to set up Service Level Agreements 	DERC
<ul style="list-style-type: none"> Encourage a high standard of biological monitoring, by developing standard methodologies for collecting, submitting and maintaining biological records in line with guidance developed through the NBN 	DERC
<ul style="list-style-type: none"> DERC to review its data holdings and other data sets held within the county in order to identify significant gaps in our knowledge and to develop a programme of targeted survey and recording to address these. 	DERC
<ul style="list-style-type: none"> In partnership with DERC devise a biodiversity monitoring strategy for the county and input to the UK BARS. 	Dorset Biodiversity Partnership
<ul style="list-style-type: none"> Encourage and support the collection and submission of biological records from the public, private and voluntary sectors, by providing training. 	DERC
<ul style="list-style-type: none"> Encourage more people to record their local environment, either through systematic surveys of their village or parish, or as part of a county information gathering programme targeted at individual species or habitats. 	Dorset Biodiversity Partnership

3.3 Common theme: land use planning

Introduction

Within the last fifty years increased development has caused extensive loss of biodiversity in Dorset. The need for housing, industrial and business development, roads and other service infrastructure, coastal defence, waste disposal and mineral extraction, have all been significant factors. They have resulted not only in direct loss of habitats, but also in a variety of indirect impacts on nature conservation such as pollution, modification of water quality and flow, recreational pressure on sites in proximity to development, and isolation and fragmentation of habitat. Some of these effects have acted in combination with each other to exacerbate the losses.

The demand for new development continues in Dorset. Local Authorities, through their role in formulating Development Plans and in the development control process, play important roles in determining the future of Dorset's biodiversity. In recent years nature conservation has been considered an important, even overriding, material factor in determining planning decisions, particularly through the influence of European Directives on nature conservation in Dorset.

In the coming years nature conservation will influence the direction of economic development across the county, with issues most acutely focused in South-East Dorset. To avoid repeating past conflicts a new, more coherent approach to biodiversity and land use planning is needed to integrate social, environmental and economic aims. Built development will be needed to meet the needs of the local people; however, with careful planning this need not be at odds with nature conservation. Environmental and biodiversity requirements need to be integrated into new development so that the needs of local people are reconciled with those of biodiversity.

Biodiversity Principles for Land Use Planning in Dorset

- Conserving and enhancing biodiversity is a key test of sustainable development.
- Where appropriate attempts should be made to reverse habitat fragmentation and species isolation.
- Development should not lead to a net loss of biodiversity.
- Where losses cannot be avoided they must be kept to a minimum and adequate mitigation provided.
- New development can offer an opportunity to contribute towards a net gain in biodiversity and can incorporate biodiversity into new designs and plans.
- Designated sites must be afforded levels of protection appropriate to their status.
- Ecological systems must be recognised as being highly complex. Indirect and cumulative impacts should be taken into account in assessing potential impacts.
- Natural Area and Biodiversity Strategy priorities should be used as part of the suite of guidance for planning policies.
- Plans at all levels should be based on adequate biodiversity information and interpretation.
- Adequate information must be provided with planning applications to enable the local planning authority to determine the effects the development will have on biodiversity.
- The land use planning system should monitor the effects of development on biodiversity.
- Wherever possible the land use planning system should provide the opportunity for local people to become involved in maintaining, enhancing and enjoying biodiversity in their area. Community Strategies should provide a key element in achieving this.

Objective

- To ensure that the land-use planning system provides for the conservation and where possible enhancement of biodiversity.

Current factors affecting biodiversity and land use planning

- The weight given to biodiversity conservation interests in reaching planning decisions.
- Level of nature conservation advice available to local planning authorities.
- Treatment of nature conservation as a constraint.

Current actions

- Application of protective legislation and Regulations.
- Local Plans, policies and Supplementary Planning Guidance for nature conservation.
- Liaison between planners and conservationists on individual issues and plans.
- Awareness-raising initiatives, e.g. planning and nature conservation guidance, seminars.
- Community initiated campaigns on individual planning cases.

Action	Potential partners
<ul style="list-style-type: none">• Integrate biodiversity objectives into Development Plans.	Local Authorities
<ul style="list-style-type: none">• Maintain and enhance level of biodiversity protection given by any future altered planning system.	Local Authorities
<ul style="list-style-type: none">• Identify green networks to facilitate the movement of wildlife through existing and proposed settlements, which link to the countryside beyond.	Local Authorities
<ul style="list-style-type: none">• Assist planners in dealing with biodiversity issues by producing Supplementary Planning Guidance.	EN, DWT, DERC
<ul style="list-style-type: none">• Ensure up to date habitat and species data are available, and used to inform the planning process, through supporting the maintenance and development of the Dorset Environmental Records Centre.	Local Authorities
<ul style="list-style-type: none">• Acquire sufficient in-house expertise, or utilise the services of statutory and non-statutory conservation organisations and consultants to give due regard to biodiversity conservation in the planning process.	Local Authorities
<ul style="list-style-type: none">• Identify the mechanisms through which lines of communication between planners, conservationists and developers can be enhanced. (e.g. through Community Strategy/AONB).	Local Authorities, relevant conservation organisations.
<ul style="list-style-type: none">• Aim towards a mechanism to monitor the effects of land-use planning policies and decisions on biodiversity, e.g. through Sustainability Indicators.	Local Authorities

4 MAKING IT HAPPEN



4.1 A Partnership Approach: Headline Actions for Key Sectors

The successful delivery of actions set out in this Strategy requires involvement from all sectors of the community. A partnership approach means that the workload can be shared and a wide range of skills and resources used. It also ensures that there is a shared commitment to and ownership of the process.

The key sectors listed overleaf have a distinct role to play in the biodiversity process. Biodiversity conservation is already being delivered by these sectors through current initiatives and policies, and the actions set out in this document indicate the role these sectors can play in the future.



Making a boardwalk by Tony Bates

The following headline actions summarise the main ways in which they can contribute:

Business and Industry

- Champion a priority habitat or species.
- Join a partnership established to take forward project work, and consider loaning equipment and expertise to the initiative.
- Promote the benefits of your involvement with the biodiversity process through existing business advice networks.
- Carry out a biodiversity audit of your own property/landholding and implement appropriate management.
- Establish environmental management systems to improve environmental performance, including provision for biodiversity.
- Encourage staff to participate in local environmental projects.

Community Groups

- Get involved in your local authority Community Strategy process and raise your concerns for biodiversity.
- Adopt a local area for wildlife.
- Organise wildlife recording and monitoring schemes.
- Raise awareness in your community through wildlife events, talks etc.
- Incorporate local biodiversity issues into Village Design Statements, Village Appraisals or Parish Plans.

Education and Research Institutions

- Identify the need for additional curriculum support materials on biodiversity for each key stage and utilise relevant initiatives (e.g. Wildlife Trusts WATCH scheme, RSPB Wildlife Explorers Club etc) to provide material.
- Reinforce biodiversity as a key topic in the programmes of wildlife study centres and informal venues for education such as Sealife Centres.
- Establish local links between schools and practical wildlife initiatives on sites such as nature reserves.
- Review institution's use of current resources for biodiversity such as their own landholding, access to grant-aid etc.
- Utilise and support the activities of environmental education organisations and projects such as Learning Through Landscapes etc.
- Encourage the introduction of biodiversity into teacher training.
- Promote the establishment and appropriate use of school nature clubs and school wildlife areas.

Government Offices and Departments

- Disseminate information on biodiversity.
- Provide funding for implementation of biodiversity action.

Individuals

- Get involved in biodiversity conservation (such as recording schemes or practical habitat management).
- Create a wildlife area in your garden.
- Join a wildlife charity.
- Review the environmental impact of your everyday activities and purchases.

Local Authorities

- Integrate action for biodiversity conservation into community strategies.
- Include biodiversity indicators in Best Value review process.
- Identify links between biodiversity issues and all other activities of the local authority and develop strategies to advance biodiversity programmes.
- Develop Members' awareness of and support for, the biodiversity process.
- Ensure that all development plans and other strategies incorporate biodiversity issues.
- Ensure sufficient resources are allocated within the local authority to play a full and effective part in the biodiversity process.

Landowners and Managers

- Enter an environmental land management scheme.
- Utilise the available conservation advisory services and demonstration days to help you manage for biodiversity.
- Review the management objectives of your land holding to consider the requirements of habitats and species, and incorporate them into the running of your business.
- Use your experience and expertise to inform future development of environmental land management schemes and advisory services.

Statutory Environmental Agencies

- Integrate relevant actions from the biodiversity strategy into your programmes.
- Continue to be an active member of the Dorset Biodiversity Partnership.
- Provide funding for biodiversity action relevant to Agency duties.

Statutory Water Companies

- Continue to be an active partner on biodiversity initiatives.
- Manage your land holdings for biodiversity.

The Tourism Industry

- Work in partnership with wildlife organisations to ensure appropriate promotion and interpretation of sensitive areas.
- Set up a visitor payback scheme.
- Develop 'sustainability checklists' for tourism projects.

Voluntary Conservation Organisations

- Continue to be an active partner of the Dorset Biodiversity Partnership.
- Feedback all biological data to DERC.
- Integrate relevant actions from the biodiversity strategy into your work programmes.

4.2 Funding

A number of the actions can be implemented through existing work programmes, procedures, initiatives and funding sources. Others, however, will require new approaches to undertaking work, and may need additional funding to be made available to meet targets. This strategy highlights action that has not yet been initiated and can be used to lobby for change locally, regionally and nationally in order to achieve our obligations under the Convention on Biological Diversity.

An understanding of the costs of biodiversity conservation helps to:

- assess whether enough funding is being allocated to conservation actions by all interested parties
- inform the development of conservation grants and incentive schemes
- ensure that conservation actions are cost effective, enabling conservation organisations to achieve maximum conservation gains from limited budgets.

Sources of Funding and Future Opportunities

Agri-environment schemes

The Countryside Stewardship Scheme (and new arable options), ESA Scheme, the Woodland Grant Scheme and Farm Woodland Premium Scheme can potentially provide funding to assist in the implementation of some priority habitats. The current agri-environment review will provide further opportunities, and the introduction of an 'entry level' agri-environment scheme (as proposed by the Curry Commission) could help fund basic environmental land management.

Grants from Statutory Agencies

A range of grants for priority biodiversity habitats and species is available through these agencies at national and local level.

Developers through planning obligations (Section 106 Agreements)

This source of funding can potentially cover land purchase and habitat creation costs. It can also involve the maintenance of existing habitat and the restoration of degraded or neglected habitats within, adjacent or near to development sites. Circular 1/97 Planning Obligations establishes five tests which must be applied in order to determine whether 106 Agreements are appropriate.

Biodiversity Partnership

A number of partners provide funding or in-kind support through existing budgets and staff resources. This type of contribution from partnership members, even in small amounts, can be vital in order to act as a lever to attract external grant awards.

Grant Awards

Award schemes such as the Heritage Lottery Fund and Landfill Tax Credit Scheme can potentially supply very significant sponsorship, but can require match funding. Certain elements of biodiversity work such as awareness raising, may be eligible for funding from sources not traditionally associated with environmental or biodiversity work.

New National Biodiversity Programmes

To implement the UK BAP a number of national programmes have been developed (e.g the Tomorrow's Heathland Heritage Programme) which have provided significant amounts of funding that have benefited Dorset directly. New programmes are likely to be developed in the future which may provide further funding opportunities for Dorset.

EU Funding

A variety of funding sources are available including regional regeneration funding that can be utilised to develop community based wildlife projects. Grants include LEADER+ and the LIFE fund.

Asset Management Plan 4

The water authorities AMP3 programme includes a number of positive actions for biodiversity relating to improved water quality and supply. Future agreements under the AMP4 programme could address new or outstanding issues that would contribute to the implementation of actions for wetland and coastal habitats.

Business Sponsorship

A number of national sponsorship schemes are currently operating, including Species Champions such as Tog 24 who are sponsoring the Stag Beetle and Tesco who are sponsoring the Skylark. There are also examples of local companies such as Eastern Generation who are sponsoring a grant scheme for the implementation of the Nottinghamshire BAP.

Areas of Outstanding Natural Beauty (AONB) Funding

Each AONB has a budget to facilitate the preparation and implementation of AONB Management Plans. As 53% of Dorset is designated as AONB this is potentially a significant future funding source for biodiversity work.

Area of activity	Typical cost (where known)*
Biodiversity Infrastructure	
Biodiversity co-ordination post	£25,000
Local Record Centre annual running cost	£70,000
Survey/Training/Research	
Habitat inventory (average cost)	£15/hour
Survey contractor rate	£150+/day
Support for volunteer surveyors	Up to 40 miles
(nominal budget for expenses)	@ 22-26p/mile
Small 1 day training workshop	£550
(fee of a trainer and refreshments for up to 20 people)	
Large 1 day training workshop (larger and more prestigious)	£2000
Research (desk top contract)	£5000
Promotion & Interpretation	
A4 leaflet	- design
	- 1000 print run (colour)
Information boards	£2000
Advisory Services	
Site visit to advise on habitat management	£50/ half day
Preparation of Countryside Stewardship application	£850

* The base year for costs is 2002, and they are based on data provided by the Biodiversity Partnership.

The Main Areas of Biodiversity Costs

Based on the recommended actions contained within this strategy, the following areas will require additional funding to implement biodiversity action in Dorset:

- Re-creating and enhancing habitats
- Maintaining existing habitats
- Advice
- Survey, monitoring & training
- Communications and publicity
- Research
- Biodiversity infrastructure – a Biodiversity Co-ordinator/ DERC

No attempt has been made to attach overall costs to these areas of work. However, the table below provides some examples of the type of costs associated with conservation work.

Action: (to be co-ordinated by the Dorset Biodiversity Partnership and/or other partners as appropriate)
<ul style="list-style-type: none"> • Continue to provide financial support for land management advisory services.
<ul style="list-style-type: none"> • Secure funding for a five year period for a co-ordinating officer post reporting to the Biodiversity Advisory Group.
<ul style="list-style-type: none"> • Take a co-ordinated, targeted approach to fund-raising in order to maximise the uptake of available funding mechanisms, by working in partnership at a local and regional level.
<ul style="list-style-type: none"> • Present relevant biodiversity actions as discrete projects to attract funding.
<ul style="list-style-type: none"> • Develop larger project bids for funding sources with significant budgets e.g. HLF funding.
<ul style="list-style-type: none"> • Promote Dorset as a priority area for work through the national programmes of research and management e.g. the national BAP implementation programme.
<ul style="list-style-type: none"> • Investigate opportunities for collaborative research, monitoring and training with DEFRA and the Forestry Commission.
<ul style="list-style-type: none"> • Develop and promote a programme for local business sector involvement in the implementation of the strategy.

4.3 Implementation

The publication of the Dorset Biodiversity Strategy marks the beginning of a process, not the completion of one. The implementation of the recommended actions contained in this document, will require input from those already involved in biodiversity conservation and others who have just begun to explore their role.

Impetus for this process will be provided by the on-going work of the Dorset Biodiversity Partnership and others that supported the development of this document to date. The Biodiversity Partnership would like to involve all interested parties to progress the actions set out in this strategy.

The review period for the strategy is 10 years. Progressing action will involve a great variety of projects, initiatives, courses of action and levels of activity. Some can be progressed immediately and others will evolve over time. The process needs to be adaptable to changing circumstances, and the strategy should therefore be seen as a working document.

The need for Lead Partners

In the preparation of future habitat and species action plans a Lead Partner will be identified to monitor progress being made on individual actions. This is likely to be the organisation with the most influence on the particular habitat or species.

The Biodiversity Partnership Management Group will monitor the strategic actions set out in this document. A Lead Partner is simply a co-ordinating role, with no accountability for actions – this is the responsibility of the 'deliverer' organisations listed next to each action.

The deliverer organisations have been identified because in most cases they are best placed to ensure that the action identified is indeed undertaken, in some cases through partners putting themselves forward for actions, and in others by key players suggesting whose contribution will be important. Success will largely rest on the commitment and enthusiasm of individual partners. The Biodiversity Co-ordinator post will play a vital role in stimulating and co-ordinating action.

However, landowners and managers also have a crucial role to play in the implementation of most action, and their agreement and support is essential for delivery. It has not been possible to gain the agreement of every landowner in Dorset for each action, instead it is hoped they will be represented by the major landowning, farming and forestry organisations, and through their participation in on-the-ground projects, and focused initiatives.

4.4 Monitoring of Progress

Each Lead Partner will be asked to take a role in monitoring progress with the programme of actions in their Topic Action Plan. This will require evaluation, on a regular basis (annually, biennially or another appropriate cycle) of the degree to which the responsible parties are achieving their tasks as set out in the Action Plans. The existing Dorset Biodiversity Project database will provide the mechanism to gather the monitoring information. If necessary, Action Plans can be adjusted in terms of timetable of completion, appropriateness of actions, or roles of particular contributing partners.

Monitoring of progress towards biological targets will be crucial to assessing the practical difference it makes to the biodiversity of Dorset, in terms of the quality and extent of habitat and the range and health of species populations. The setting of local targets and the implementation of a biological monitoring strategy, will allow us to monitor progress.

4.5 Reviewing the Actions

The Dorset Biodiversity Strategy is a working document which, given its 10 year time-scale, must adapt to changing circumstances and respond to the lessons learned through the process of implementation and monitoring.

A mid-term review of the whole strategy should be carried out in consultation with all partners in 2007, to adjust targets and actions in light of the results of monitoring, and in the context of changing issues and threats.

Involvement in the national reporting and review process

A national reporting system will be in place via the UK BAP website at www.ukbap.org. This will allow each LBAP to regularly update their progress towards the UK biodiversity targets. In 2005 the national reporting round will lead to a comprehensive examination, and re-setting of national targets which have proved to be under or over ambitious. At this time there will need to be an assessment of whether locally set targets require adjustment in line with national ones.

Action for Implementation, monitoring and review: (to be co-ordinated by the Dorset Biodiversity Partnership).

- Identify a Lead Partner for each Topic Action Plan, to be responsible for co-ordinating action.
- Set in place an annual cycle of monitoring and review of progress of actions, utilising the UK Biodiversity Action Reporting System to collate and interpret information gathered.
- Set up a Service Level Agreement with DERC to monitor change in priority habitats towards biodiversity targets.
- Undertake a mid-term review of progress in 2007, to adjust targets and actions in light of the results of monitoring, and in the context of changing issues and threats.

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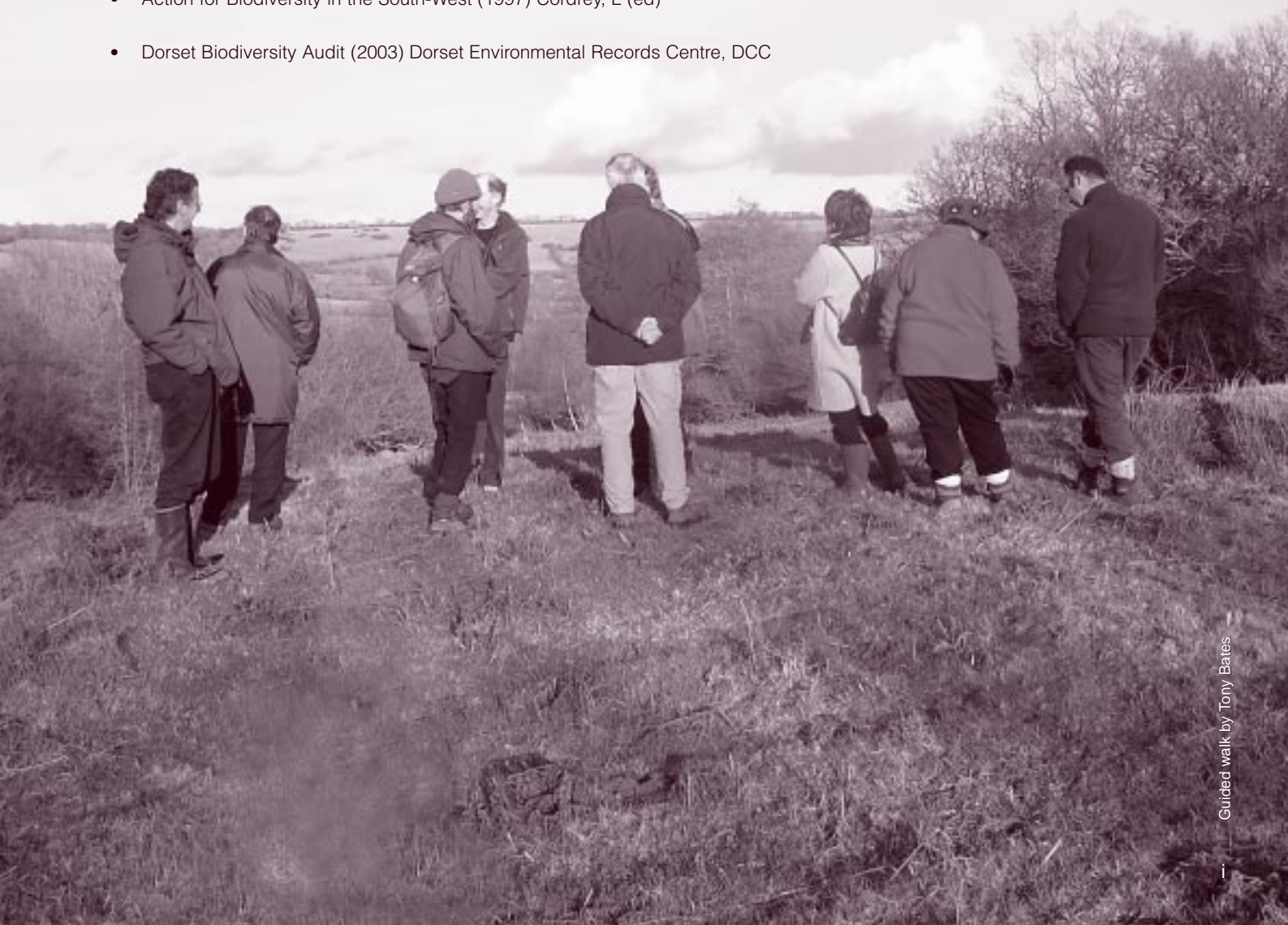
APPENDICES



Appendix A

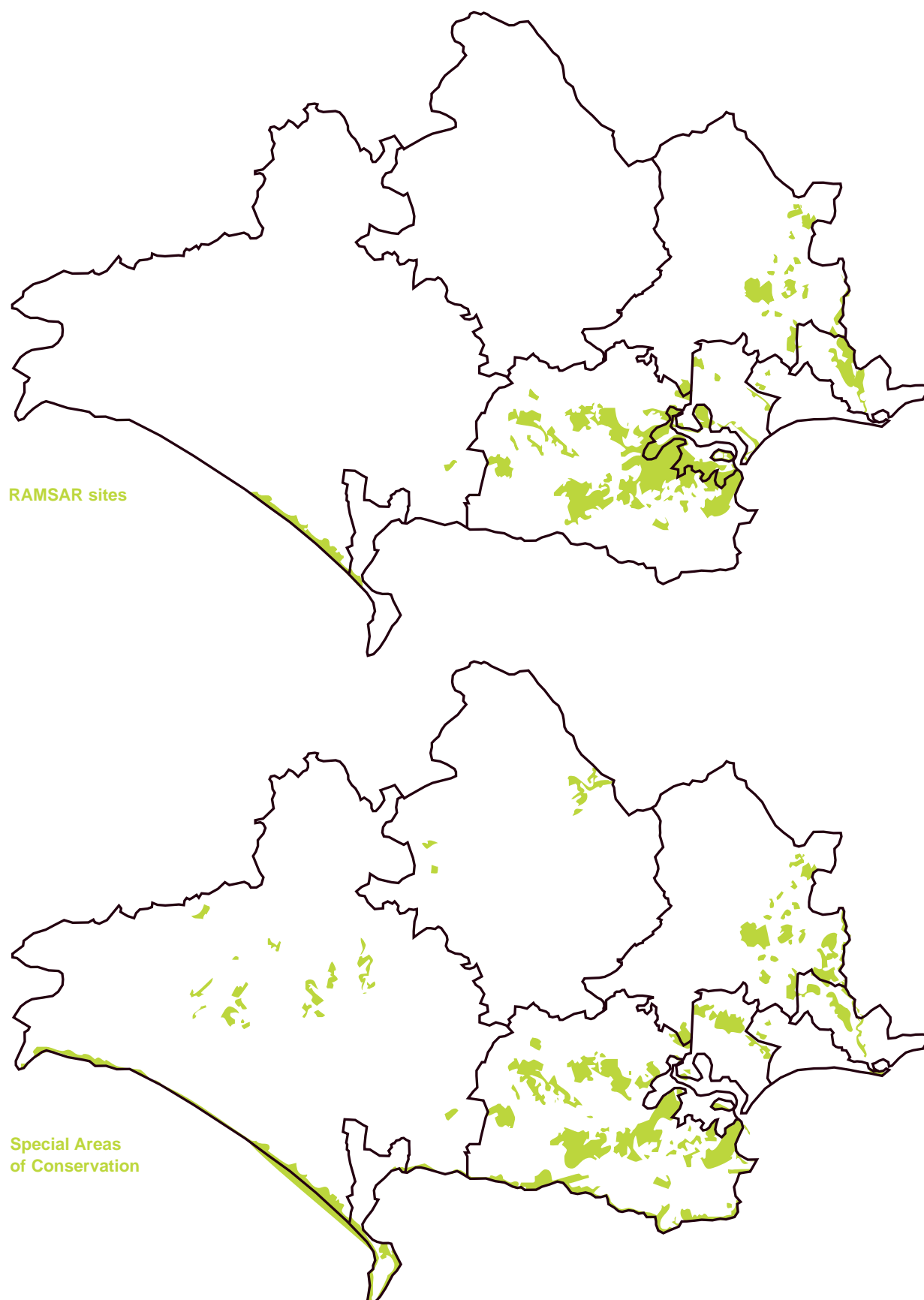
Key references

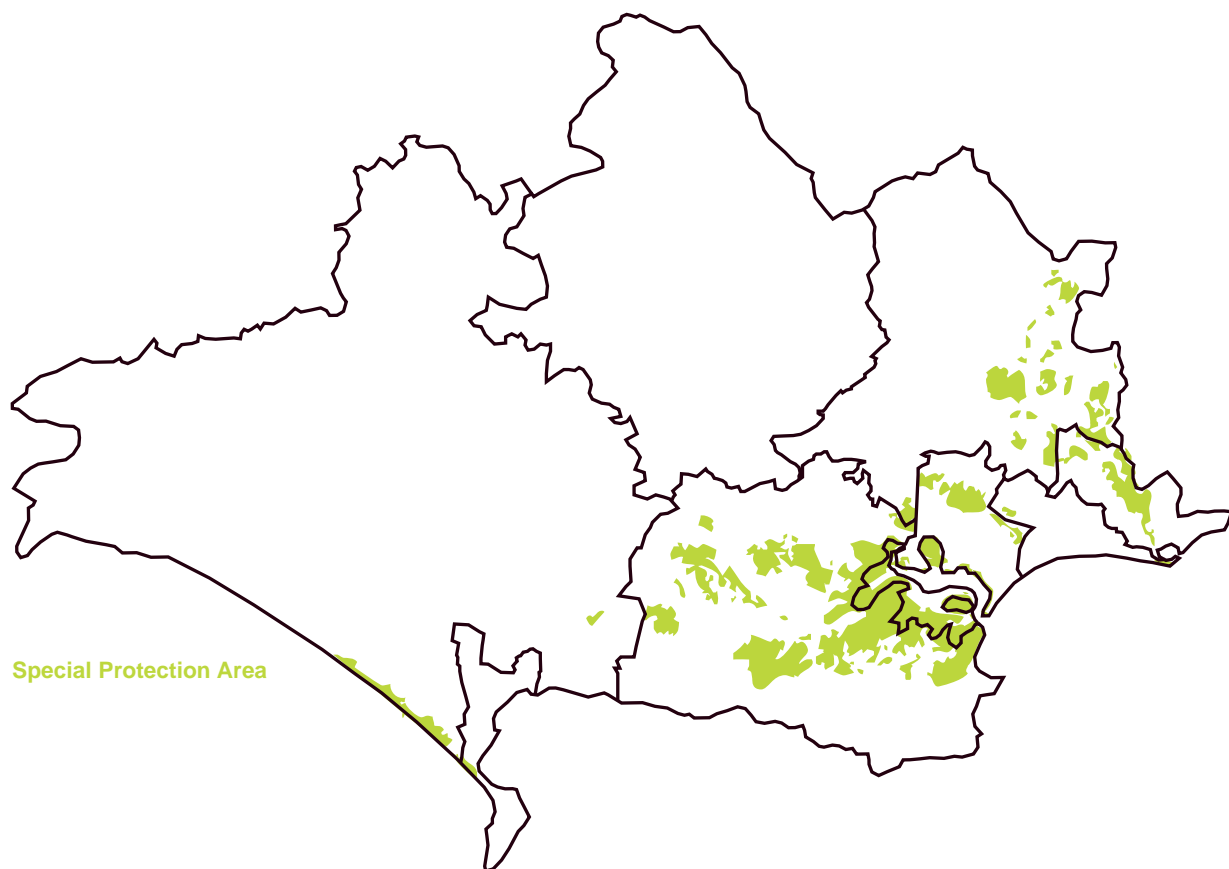
- Biodiversity: The UK Action Plan (1994) Department of the Environment, HMSO.
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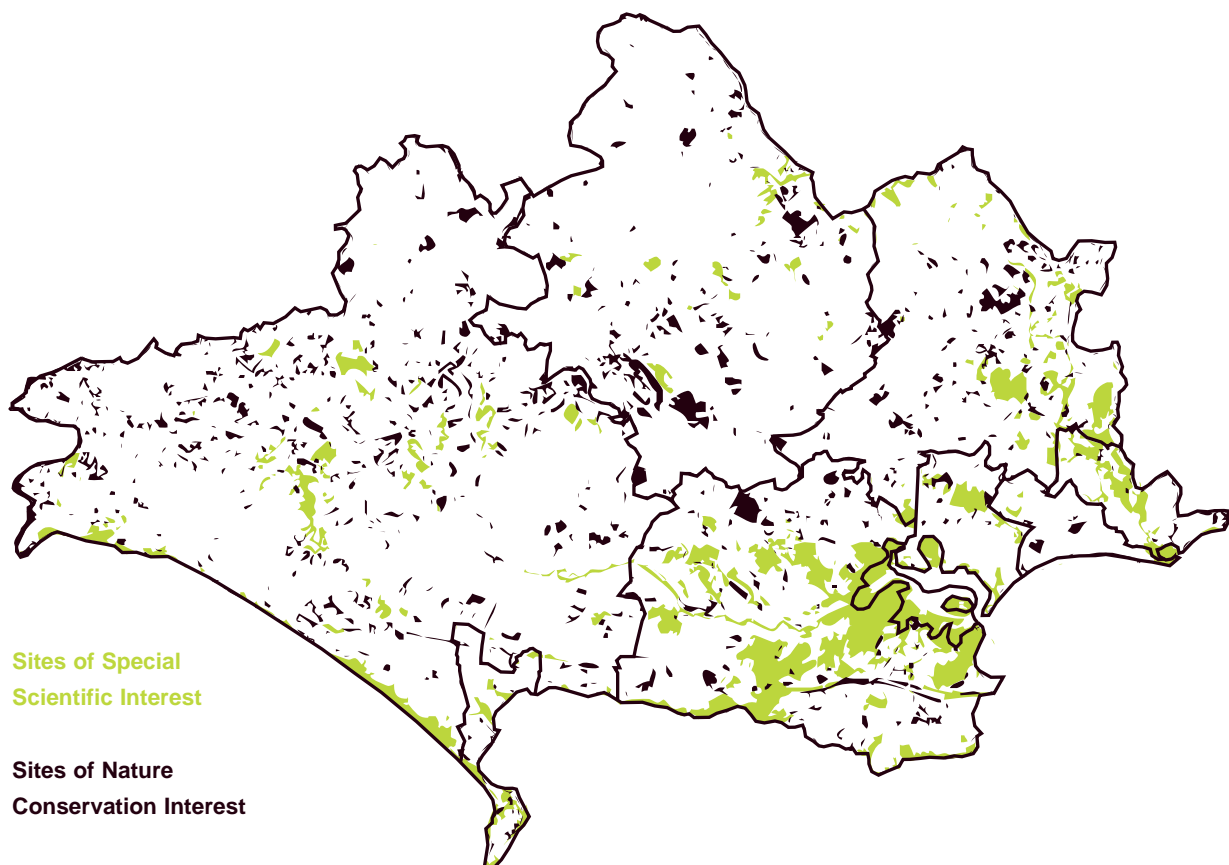
Appendix B

Important International, National and Local Wildlife Sites in Dorset





Special Protection Area



Sites of Special
Scientific Interest

Sites of Nature
Conservation Interest

Appendix C

Key to habitat status tables

Local decline rate:

rapidly declining = 50 -100% decline in Dorset in the last 25 years
declining = 25-49% decline in Dorset in the last 25 years
Stable = 24% increase - 24% decrease in Dorset in the last 25 years

Proportion of UK habitat in Dorset:

Endemic = 100% of total UK resource
Highly significant = 20-99%
Significant = 10-19%
Modest = 1-9%
Low = less than 1%

Local rarity:

N/A = not applicable to marine habitat
Rare = less than 0.6% of the area of Dorset
Scarce = 0.6 - 4% of the area of Dorset
Common = more than 4% of the area of Dorset

Local threat:

Directly threatened by lack of or inappropriate management (if terrestrial)
Directly threatened by e.g. anchoring (if marine)
Indirectly threatened by generic factors (e.g. pollution)

Potential for extending/linking current areas:

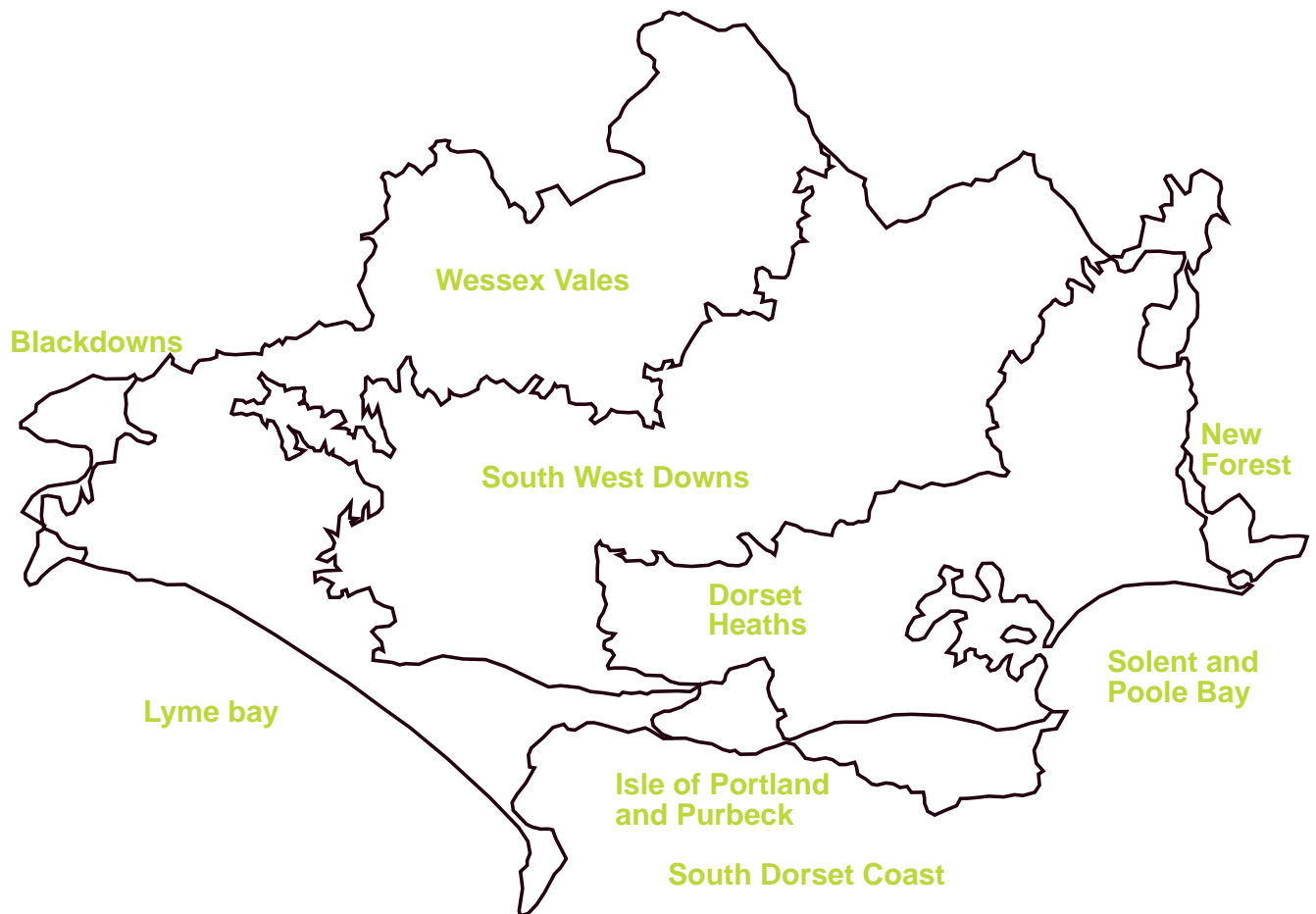
High = Good potential to extend/link habitat fragments
Medium = potential exists to extend/ link habitat, but geomorphology (or other factor) is limiting
Low = Habitat is a fixed area with little potential to extend
N/A = not applicable to marine habitat

Survey priority:

Low = current information is sufficient to assess conservation status
Medium = further information is required, = to update existing audit
High = current information is insufficient to assess conservation status

Note: Where possible expert opinion has been used to fill information gaps in completing these tables

Appendix D
Biodiversity Targets by Natural Area



For each of the habitats shown in the following table the maintenance target is:

Ensure no loss in the extent or quality of the existing resource of the habitat.

Biodiversity targets by Natural Area			
Habitat	Natural Area with the greatest potential for restoration and expansion	Habitat restoration	Habitat expansion
Lowland Calcareous grassland	Blackdown	Secure sympathetic management of 30% of remaining resource by 2005, 100% by 2010	Re-establish grassland of wildlife value: * 5 ha by 2010
	Dorset Heaths		*2 ha by 2010
	Isles of Portland and Purbeck		*25 ha by 2010
	South Wessex Downs		*200ha by 2010
	Wessex Vales		*15ha by 2010
Lowland dry acid grassland	Blackdowns		*5ha by 2010
	Dorset Heaths		*25ha by 2010
	Isles of Portland and Purbeck		*5ha by 2010
	South Wessex Downs		*2ha by 2010
	Wessex Vales		*5ha by 2010
Lowland hay meadows	Blackdowns		*2ha by 2010
	Dorset Heaths		
Coastal & floodplain grazing marsh	Isles of Portland and Purbeck		Re-establish new area of grazing marsh#: 25 –50 ha by 2010
	South Wessex Downs	Restore 50 ha by 2010	
	Wessex Vales	Restore 100 ha by 2010	
Lowland heathland	Dorset Heaths	Secure sympathetic management of remaining heathland resource by 2010	Re-establish heathland by 1000 ha by 2010
	Isles of Portland and Purbeck	-	-
	Wessex Vales	-	-
Cereal field margins	All Natural Areas across the South-West	South Wessex Downs ESA: 300ha by 2010	
		No other targets	
Wet woodland	Dorset Heaths Wessex Vales	Achieve favourable condition over 50% of the resource by 2010	Increase total area through planting and natural regeneration: 50ha by 2015
Lowland beech and yew	South Wessex Downs	Restore 50 ha by 2015	Increase total area through planting and natural regeneration: 100 ha by 2015
Lowland wood pasture and parkland	Dorset Heaths Isles of Portland and Purbeck Wessex Vales	Restore former or degraded parkland: 3 sites by 2010	Link isolated sites through natural regeneration and planting: 3 sites by 2005
Ancient & /or species rich hedgerows	All Natural Areas across the South-West	Secure sympathetic management of 50% of remaining resource by 2005, 100% by 2010	All Natural Areas have significant potential for the establishment of new hedgerows.
Reedbeds	Solent & Poole Bay Wessex Vales	Restore 143 ha by 2005 Maintain and rehabilitate where necessary: Fleet (51ha) Lodmoor (32 ha) Radipole (39ha) by 2005	
Fens	Dorset Heaths	Restore priority fens by 2005	NONE
	Isles of Portland and Purbeck	No target	No target
	Wessex Vales	Restore priority fens by 2005	NONE

Biodiversity targets by Natural Area cont . . .

Habitat	Natural Area with the greatest potential for restoration and expansion	Habitat restoration	Habitat expansion
Purple moor grass and rush pastures	Blackdown	Restore 75% by 2005	Re-establish 25 ha by 2010
	Wessex Vales	Restore 50 ha by 2005	NONE
Chalk streams South Wessex Downs	Dorset Heaths	Restore water quality, flows and habitat diversity on SSSI's by 2010 Review the need and potential for restoration of remaining chalk rivers	N/A
Eutrophic standing waters	No NA's occurring in Dorset highlighted as ..		
Coastal:			
Maritime cliff and slope	Lyme Bay	Improve by management the quality of clifftop and slope habitat: 30% by 2015	Increase clifftop and slope habitat: 15 ha by 2020
	South Dorset Coast		Increase cliff top and slope habitat: 10 ha by 2020
Littoral and sublittoral chalk	Lyme Bay	Maintain 3 kilometres by 2015	NONE
	South Dorset Coast	Maintain 12 kilometres by 2015	NONE
Coastal vegetated shingle	Lyme Bay South Dorset Coast Solent & Poole Bay	Restore quality of damaged or degraded shingle habitats where natural regeneration is unlikely: by 2010	-
Coastal sand dunes	Solent & Poole Bay	Restore dune grassland: 90 ha by 2010	-
Coastal saltmarsh	Lyme Bay	-	-
	South Dorset Coast	-	-
	Solent & Poole Bay	-	Increase by 200ha by 2015
Mudflats	Lyme Bay	Restore water quality to enable mudflat habitats to be in favourable condition by 2010	Offset all losses due to coastal defences etc: no target specified by 2015
	South Dorset Coast		Consider opportunities for re-creating saltmarsh by 2010
	Solent & Poole Bay		Increase the estuary area...
Saline lagoons	Lyme Bay	-	-
Seagrass beds	Lyme Bay	-	-
	South Dorset Coast	-	-
	Solent & Poole Bay	Assess feasibility of restoration of damaged or degraded seagrass beds by 2010	-
<i>Sabellaria alveolata</i> reefs	Lyme Bay	Ensure coastal water quality objectives and nutrient standards are achieved by 2010	Attempt to re-establish or restore <i>Sabellaria alveolata</i> reefs where they were formerly present by 2015

Appendix E

Acronyms used in the text

AONB – Area of Outstanding Natural Beauty

A-E – Agri-environment schemes

BAP – Biodiversity Action Plan

BC – Butterfly Conservation

CAMS – Catchment Abstraction Management Strategy

CLA – Countryside and Landowners Business Association

CS – Countryside Stewardship

DBC – Dorset Butterfly Conservation

DCC – Dorset County Council

DEFRA – Department of the Environment, Food and Rural Affairs

DERC – Dorset Environmental Records Centre

DWT – Dorset Wildlife Trust

EA – Environment Agency

EIA – Environmental Impact Assessment

EN – English Nature

ESA – Environmentally Sensitive Areas

EU – European Union

FC – Forestry Commission

FE – Forest Enterprise

FSC – Forestry Stewardship Council

FWAG – Farming and Wildlife Advisory Group

HAP – Habitat Action Plan

HCT – Herpetological Conservation Trust

HLF – Heritage Lottery Fund

JDMC – Joint Dorset Marine Committee

LAs – Local Authorities

LA21 – Local Agenda 21

LIFE – A European funded Conservation Project

MoD – Ministry of Defence

NA – Natural Area

NFU – National Farmers Union

NT – National Trust

RSPB – Royal Society for the Protection of Birds

SAC – Special Area of Conservation

SLMP – Shoreline Management Plan

SPA – Special Protected Area

SNCI – Site of Nature Conservation Interest

SSSI – Site of Scientific Interest

WT – Woodland Trust

WLMP – Water Level Management Plan

