



FEN & SWAMP

1. INTRODUCTION

There are many types of wetland in the sub-region, even though they only occupy a relatively small total area. Reedbed has been covered by a separate action plan, but this plan deals with the various other wetlands that fall within the categories of 'fen', 'swamp' and 'marsh'. These are vegetated, non-woodland habitats in which the water level remains above or close to ground level for much of (although for not necessarily all) the year.



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This habitat favours specialised wetland plants such as sedges, rushes, reed mace, reed sweet-grass and reed, and characteristic flowers such as yellow flag, ragged robin, meadowsweet, marsh marigold and great willowherb. Such habitats are rarely stable and without management will eventually revert to carr and wet woodland (subjects of other action plans). Wetlands often occur in association with these habitats as part of larger habitat mosaics.

Some of the largest wetlands in our area are associated with limestone quarrying and gravel extraction. The holes which were produced often penetrate the local water table resulting in water bodies of varying depth. Where water is sufficiently shallow, wetlands will form and in time can acquire very diverse plant communities influenced by hydrology, topography, water and substrate chemistry, history of land use and current land use. Smaller scale wetlands can be associated with rivers and stream corridors, ditches and other drainage features, areas of impeded drainage, canals, pool and lake margins, and springs or seepages. The latter category includes a scattering of limestone springs and seepages on scarp slopes of the Lower Lias and Cotswolds (e.g. at Radway, Whichford and Larkstoke) and within certain quarries (most notably Nelsons Quarry, Napton Quarry and Bishops Bowl). These lime-rich wetlands support some particularly unusual insect communities containing numerous rarities, but have been poorly recognised until recently.

Wetlands of a more acidic nature e.g. 'poor fen' and 'bog' are associated with base-deficient geology to the north and west and include the Coleshill Bog-Bannerley Pool-Bickenhill Plantation area. Characteristic plants include purple moor-grass, bog myrtle and *Sphagnum* mosses. Unfortunately, little in the way of true bog survives here today. A small amount exists at Berkswell Marsh and Sutton Park provides another example just outside the scope of this action plan.

The total list of plants and insects associated with such wetlands is huge, and the diversity of these and the number of scarce species can be used to evaluate wetland quality. Certain 'indicator' groups such as hoverflies and *sciomyzid* flies are particularly good at reflecting the overall quality and character of a wetland, such as its age, hydrology and water quality. Important bird assemblages can also be present in larger wetlands which produce unusually large quantities of insects, a feature that can be vital for bats and

insectivorous birds, even if they breed elsewhere. The best wetlands tend to be those exhibiting a gradient and seasonal variation of waterlogging, a range of successional stages and plant communities (including wet woodland or carr plus adjacent terrestrial habitats), more than one type of water source and a lack of pollution. Fine examples include Brandon Marsh, Ufton Fields, Claybrookes Marsh, Whitacre Heath, Middleton Hall, Ladywalk Nature Reserve, Eathorpe Marsh, Stoke Floods and Alvecote Pools.

2. OUR OBJECTIVES & TARGETS	Target
A. To monitor area and nature of all remaining and new wetlands in the county to Phase 1 standard.	2005-2015
B. To maintain the current extent of all significant wetlands.	2005-2015
C. To maintain the extent and maintain / improve the condition of existing wetlands with priority given to those holding UK Biodiversity Action Plan Priority Species & Red Data Book species.	by 2007
D. To ensure all significant wetlands are managed Primarily for their nature conservation interest.	by 2007
E. To increase the extent of the habitat by creating an additional 5ha of wetland (excluding reed bed).	by 2010
F. To promote good management practice and to share knowledge	2005-2015

ASSOCIATED HABITAT PLANS

- Rivers & Streams
- Ponds, Lakes & Reservoirs
- Quarries & Gravel Pits
- Reedbeds
- Scrub & Carr

ASSOCIATED SPECIES PLANS

- Snipe
- Lapwing
- Great Crested Newt
- Water Vole
- Bats

3. NATIONAL BAP OBJECTIVES & TARGETS

The Costed Habitat Action Plan for Fens contains two targets:

- *Identify priority fen sites in critical need of rehabilitation, and initiate, rehabilitation by the year 2005. All rich fen sites and other sites with rare communities should be considered.*
- *Ensure appropriate water quality and water quantity for the continued existence of all SSSI/ASSI fens by 2005.*

The national Fen, Carr, Marsh, Swamp and Reedbed Habitat Statement encourages the following:

- *Maintain the existing area of fen, carr, marsh, swamp and reedbed habitats and identify those that are suitable for restoration. Create new reedbeds on land of low conservation importance.*

4. CURRENT STATUS

Wetlands of varying size and character are found in the sub-region, the larger ones being mainly associated with sand and gravel extraction within certain river valleys (e.g. the Tame and Avon), some water-filled limestone quarries, a few mining subsidence pools and the margins of large lakes. The 116ha identified by the Habitat Biodiversity Audit (HBA) includes reedbed and largely refers to these larger examples. Several hundred smaller, though nevertheless valuable examples occur along river and stream courses, or are associated with canals and ditches and around ponds. Unfortunately, many of these are too small for inclusion in HBA statistics.

4.1 Legal and Policy Status

Several Sites of Special Scientific Interest (SSSIs) contain significant wetlands: Alvecote Pools, Berkswell Marsh, Brandon Marsh, Claybrookes (Herald Way) Marsh, Coleshill and Bannerly Pools, Combe Pool, Ufton Fields and Whitacre Heath.

Formally designated Sites of Importance for Nature Conservation (SINCs) with significant wetlands include Stoke Floods and Wyken Slough in Coventry, Dickens Heath Marsh & Hawkshaw Brook in Solihull and Hogrills End Marsh & Duns Lane Pool in North Warwickshire, though SINC designation is incomplete in many other parts of the county, where significant wetland sites may only be subject to potential SINC (pSINC) or Ecosite designation which confers similar protection in planning terms.

Local Nature Reserves (LNRs) containing significant wetlands include Claybrookes, Wyken Slough and Stoke Floods. Country parks similarly endowed include Kingsbury Water Park and Coombe Countryside Park.

4.2 Current Factors Affecting The Habitat

- **Small total area of habitat** and small population sizes of several key species dependent on the habitat.
- **Small size and often isolated nature of individual wetlands** – can limit the number of unusual and specialist species present and reduce their ability to colonise other wetlands or survive adverse conditions such as drought (many of which require larger wetlands).
- **Lack of, or inappropriate, management** of some of the existing wetlands leading to drying out, scrub encroachment and succession to woodland.
- **Recreational pressure** – can reduce bird populations, either through noise or physical disturbance; litter and arson have also been problems at some sites.
- **Development pressure** and land use change.
- **Pollution** - from agricultural run-off or from local industry
- **Climate change** – has the potential to bring disbenefits such as extreme drought and also benefits through the creation of climate change adaptation measures such as Sustainable Urban Drainage Schemes (SUDS).

5. CURRENT LOCAL ACTION

- Warwickshire Wildlife Trust (WWT) is actively managing a number of important wetlands within its various nature reserves and a reedbed creation scheme at Brandon Marsh will probably result in other types of wetlands forming.
- A new wetland development at the Leam Valley Local Nature Reserve involved the creation of a mosaic of some 4ha of wetland habitats. The project is jointly being managed by Warwick District Council in partnership with WWT.
- New wetlands have been created at Kingsbury Water Park as part of the enhancement of its nature reserve by Warwickshire County Council (WCC).
- Hanson Aggregates are creating some 23ha of wetland habitat at Middleton Hall which straddles the Warwickshire/Staffordshire county border, resulting from restoration following sand and gravel extraction.
- Statutory conservation agencies, FWAG, WWT and RSPB staff provide advice on appropriate management, rehabilitation, extension and creation of wetlands.
- All of the wetlands of SSSI status will be subject to water level management plans prepared by the operating authority under a DEFRA initiative.

- The monitoring/recording of various invertebrate groups and birds has been taking place at many wetland sites through the activities of Warwickshire and Coventry Museums and amateur naturalists.
- DEFRA Countryside Stewardship is currently supporting the management of a fen at Barford.
- A proposed new sand quarry at Broom will include wetland habitats in the Avon flood plain.

6. PROPOSED LOCAL ACTIONS (some dates amended – Core Steering Group – Feb 2008)

ACTION	Lead	Partners	By	Meets objective
Policy & Legislation				
PL1. Ensure that all relevant habitat policy is included in Local Planning Documents (see ODPM Planning Policy Statement PPS9).	LBAPSG	LAs	2005-2015	A
PL2. Ensure that any site meeting the relevant criteria is considered for designation as an SSSI.	NE	FWAG LBAPSG RSPB STW WM WCC EA WMBC WSP LA WWT MP	2005-2015	A
PL3. Review and renotify all qualifying wetland sites as SINCS and enter onto database.	WSP		2007	A
PL4. Strongly recommend that Sustainable Urban Drainage Scheme (SUDS) policies are included in development control plans and strongly advocate the use of SUDS and natural drainage systems in all new development.	EA	WWT LAs NE	2005-2015	F
Site / Species Safeguard & Management				
SM1. Ensure appropriate use of expertise in commenting on development proposals and actively work to prevent negative impact on the integrity of conservation of existing and proposed wetlands.	LBAPSG	WWT EA LAs	2005-2015	B,C

SM2. Determine priority sites for wetland extension. Support proposals to extend wetlands where appropriate.	LBAPSG	WMBC WWT LAs RSPB	2007	F
SM3. Ensure that water level management plans prepared for all wetland SSSIs are designed to provide optimal water, including the water table and management conditions, and implement fully.	NE	WWT LAs EA	2005-2015	B
SM4. Encourage the use of schemes such as Environmental Stewardship to manage, restore and recreate wetland habitats.	NE	STW WWT EA RSPB FWAG	2005-2015	B, D, F
SM5. Promote inclusion of wetland habitat in after-use schemes as a condition of mineral extraction licensing where appropriate.	LBAPSG	WCC WWT WM MPs	2005-2015	B
SM6. Actively recommend measures to increase the extent of connectivity and maintain options to expand area of habitat.	LBAPSG	WCC LAs NE WWT	2008-2015	E
Advisory				
A1. Inform landowners of their wetland resource and advise accordingly. Seek to target landowners on suitable grant aid.	FWAG	RSPB EA NE WWT WSP	2008	E
A2. Make landowners aware of sources of information, advice and grants in relation to best practice for wetlands.	FWAG	WWT EA	2005-2015	B
Research & Monitoring				
RM1. Establish appropriate survey and research work to define priority sites and identify potential opportunities.	NE	EA RSPB WWT	2007	E
RM2. Establish an accurate database on the County's wetland sites to be transferred to GIS when available.	HBA	EA WWT	2005	A
RM3. Review the monitoring of key species of birds and invertebrates and seek to address any gaps in monitoring requirements.	WM	BC WMBC RSPB	2005	C, D
Communication, Education & Publicity				
CP1. Increase public awareness of the importance of, and threats to, fen and swamp and the need for conservation action.	WWT	FWAG RSPB EA NE	2005-2015	B

CP2. Organise and deliver wetland management training days to wetland owners in order to illustrate best management techniques.	FWAG	EN EA RSPB WWT	2005	B
CP3. Raise profile of wetlands in the county by appropriate local publicity around surveys and advice.	WWT	FWAG	2005- 2015	B
CP4. Encourage the creation of a funding scheme available for wetland creation and expansion projects.	NE	STW WCC	2005	B,C, F
CP5. Determine potential for and promote creation of wetlands >0.5ha as a filter for nitrate removal where practical.	STW	NE WCC WWT	2010	E

Abbreviations: EA - Environment Agency, NE – Natural England, FWAG – Farming & Wildlife Advisory Group, LA – Local Authority, LBAPSG – Local Biodiversity Action Plan Steering Group, MP – Mineral Planner, RSPB – Royal Society for the Protection of Birds, STW - Severn Trent Water; WCC – Warwickshire County Council, WM – Warwickshire Museums, WMBC – West Midland Bird Club, WSP – Wildlife Sites Project, WWT – Warwickshire Wildlife Trust.

7. REFERENCES

8. FURTHER INFORMATION (see separate **Links** web page for links to web sites)

UK Biodiversity Action Plan no.56
Royal Society for the Protection of Birds

9. CONTACTS

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