



REVISED PLAN NOVEMBER 2021

MARSH, SWAMP & WET GRASSLAND

1. INTRODUCTION

There are many types of wetland in the sub-region, although they only occupy a relatively small total area. The reed bed habitat is covered by a separate action plan and this plan deals with the various other wetlands that fall within the categories of 'swamp' and 'marsh', including springs and flushes. These are vegetated, non – woodland habitats in which the water level remains above or close to ground level for much of the year (although not necessarily all year) and water movement is predominantly lateral.



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This habitat favours specialised wetland plants such as sedges, rushes, reed mace, reed sweet-grass and common 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 eventually woodland. Wetlands often occur in association with these other habitats as part of larger habitat mosaics.

Some of the largest wetlands in our area are associated with gravel extraction and hard rock quarrying. The excavations 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\(Stockton\) 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 are associated with base-deficient geology to the north and west and include Coleshill Bog, Bannerley Pool and Bickenhill Plantation. Characteristic plants include purple moor-grass, *Sphagnum* mosses and marsh violet. Unfortunately, little in the way of true bog survives here today and such plants are now very rare. Small areas exist at [Berkswell Marsh](#) and nearby in [Sutton Park](#).

Wet woodland (or carr) occurs on poorly drained or seasonally wet soils, usually with alder, birch and willows as the predominant tree species, but sometimes including ash, oak, pine and beech on the drier riparian areas. It is found on floodplains, as successional habitat on fens, mires and bogs, along streams and hill-side flushes, and in peaty hollows. These woodlands occur on a range of soil types including nutrient-rich mineral and acid, nutrient-poor organic ones. The boundaries with dry woodland may be sharp or gradual and may change with time through succession, depending on the hydrological conditions

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and the treatment of the wood and its surrounding land. Therefore wet woods frequently occur in mosaic with other woodland key habitat types (e.g. with upland mixed ash or oakwoods) and with open key habitats such as marshes. Management of individual sites needs to consider both sets of requirements.

The scarce lesser spotted woodpecker (*Dryobates minor*) and willow tit (*Poecile montanus*) depend on wet woodland for both feeding and nesting, requiring decaying wood in which to excavate their nests. Damp soil conditions may influence invertebrate food availability or abundance, flies often needing moist or wet conditions for egg laying and larval development. Earthworms are active closer to the surface in damp conditions and molluscs are also more active where it is damp (Fisher et al, 2018).

The total list of plants and insects associated with these 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 snail-killing 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 reed warbler (*Acrocephalus scirpaceus*) is a favourite host of the increasingly scarce cuckoo (*Cuculus canorus*).

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.

2.	OBJECTIVES	TARGETS
Associated Action Plans are: 'Rivers & Streams', 'Quarries & Gravel Pits', 'Lakes & Reservoirs', 'Reed beds', 'Field Margins', 'Roadside Verges', 'Bats', 'Water Vole', 'Barn Owl', 'Song Thrush', 'Snipe' and 'Farmland Birds'		
PLEASE CONSULT THE '<i>GENERIC HABITATS</i>' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR OBJECTIVES COMMON TO ALL HABITAT PLANS		
A.	To restore 25ha of degraded wetland. Target has been increased in view of the urgent need to restore numbers of wading birds such as the lapwing.	2030
B.	To expand the extent of the habitat by a further 100ha, excluding reed bed. Target has been increased from 10ha in view of progress 2011-2018	2030

3. NATIONAL BAP OBJECTIVES & TARGETS

Lowland Fens are on the current UK Biodiversity Action Plan (BAP) list of Priority Habitats published in 2007([JNCC](#)) and updated in 2010-11. A description of this habitat may be seen online (see [Lowland Fens](#) BAP).

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. Several hundred smaller, though nevertheless valuable, examples occur along river and stream courses, or are associated around ponds and with canals and ditches. Unfortunately, many of these are too small for inclusion in HBA statistics.

The main area of marsh and swamp remains at the former quarry sites including Brandon Marsh, with more wetland including reed beds and emergent vegetation identified along the canals. The 143ha of wetland identified by the Habitat Biodiversity Audit in 2012 covered swamp, marsh and reed beds, with no distinction being made between these habitats in a Phase 1 survey; categories for these habitats are:

- F1 – Swamp – bands of tall vegetation wider than 5m
- F2.1 Marginal/inundation – marginal
- F2.2 Marginal/inundation – inundation

Wet grassland is a separate habitat category (B5: marsh and marshy grassland) with 115ha recorded (2017), including 55ha at 7 discrete sites: Coombe Abbey, Whitacre Flood Meadow, Hillmorton Oxford Canal meadows (Rugby), Fishers Mill Meadow, (Kingsbury Water Park), Alderham Meadows (Barford), Stonebridge Meadows and Haseley Gathering Grounds.

Between 2011-2018, 234ha of wetland habitat (not including reed bed) and wet grassland were created, mainly through agri-environment schemes. With a known area of reed beds in 2017 of at least 47ha, the area of other wetlands would have been at least 220ha but an up-to-date figure is not available.

4.2 Legal and Policy Status

A wide range of species and habitats are protected under international and domestic laws, including the [Wild Birds Directive](#) (1979), the [Wildlife and Countryside Act](#) (1981), the [Conservation Regulations](#) (1994) and [EC Habitats Directive](#) (1992). Protection of sites is afforded nationally through [Sites of Special Scientific Interest](#) (SSSI), [Special Areas of Conservation](#) (SAC) and [Local Nature Reserve](#) (LNR) statutory status. Other sites are offered recognition of their value through LWS status Local Character Areas and identified Landscape Scale Areas. The [National Planning Policy Framework](#) (2021) paragraph 180 states conditions with regard to any development negatively affecting biodiversity, including protected sites, ancient woodland and other irreplaceable habitats. The Wildlife & Countryside Act and schedule 2 of the [Conservation of Habitats & Species Regulations](#) (EU exit, 2019) make it an offence to intentionally kill, injure, take, possess, sell, buy or transport a range of species.

SSSIs containing significant wetlands are: [Alvecote Pools](#), [Berkswell Marsh](#), [Brandon Marsh](#), [Claybrookes Marsh](#) (Heralds Way), [Coleshill and Bannerley Pools](#), Coombe Pool, [Ufton Fields](#), [Ladywalk Reserve](#) and [Whitacre Heath](#).

By 2018 28 Local Wildlife Sites (LWSs) with significant wetlands had been designated:

<p>In Warwick District:</p> <ul style="list-style-type: none"> • Abbey Fields Marsh, Kenilworth • Haselely Gathering Grounds • Weston Hall Farm (also small area of wet woodland) • High Chimneys Canal meadows (includes areas of wet grassland and woodland along Stratford-on-Avon Canal) 	<p>In Solihull District:</p> <ul style="list-style-type: none"> • Dickens Heath Marsh and Hawkshaw Brook • Southern Arm Blythe Valley Country Park • Berkswell Marsh Meadow • Springfield Farm Meadows • Floodgate Meadows • Widney Manor Golf Club • Knowle Wet Meadow • Alderman Meadows
<p>In Stratford District:</p> <ul style="list-style-type: none"> • Langley Farm Marsh • Whichford Mill Meadow • Moat House 	<p>In Rugby District:</p> <ul style="list-style-type: none"> • Wolvey Wetlands Reserve • Burton Mill Meadows
<p>In Coventry District:</p> <ul style="list-style-type: none"> • Wyken Slough, Stoke Floods • Stonebridge Meadows • Lenton's Lane Swamp • Coton Park Pool, Tame Valley • Coleshill Sewage Works • Marsh Lane Grassland • Duns Lane Pool 	<p>In North Warwickshire District:</p> <ul style="list-style-type: none"> • Hoggrills End Marsh • Tame Valley Wetlands • Whitacre Flood meadow <p>In Nuneaton & Bedworth District:</p> <ul style="list-style-type: none"> • Smorrall Lane Pool

LWS designation is incomplete and significant wetland sites may only be subject to potential LWS (pLWS) or 'ecosite' designation which confers similar protection in planning terms. Finham Brook on A46, where otters are present, is one such example.

Local Nature Reserves (LNRs) containing significant wetlands include [Wyken Slough](#) and [Stoke Floods](#) (LWS). Country Parks similarly endowed include [Kingsbury Water Park](#) and Coombe Country Park.

4.3 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.

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- **Climate change** – has the potential to bring drawbacks such as extreme drought and also benefits through the creation of climate change adaptation measures such as [Sustainable Urban Drainage Schemes](#) (SuDS).

5. LOCAL ACTION

- An accurate digitised database on the county's wetland sites has been established and is updated annually.
- Statutory conservation agencies, [Warwickshire Wildlife Trust](#) (WWT) and the [Royal Society for the Protection of Birds](#) (RSPB) provide advice on appropriate management, rehabilitation, extension and creation of wetlands.
- The records of various invertebrate groups and birds collected at many reed-bed sites through the activities of [Warwickshire Museum](#), and [Herbert Art Gallery & Museum](#), Coventry and amateur naturalists, especially ornithologists are held by Warwickshire Biological Record Centre.
- [Agri-environment schemes](#) administered by Natural England support:
 - in the past, the management of Alderham osier beds, Barford; the osier bed is now derelict.
 - the maintenance/restoration/creation of wet grassland for breeding waders: Higher Level (HLS) and Organic HLS options HK9/HK11/HK13
 - the maintenance/restoration/creation of wet grassland for wintering waders: Higher Level (HLS) and Organic HLS options HK10/HK12/HK14.

Management of wetland/wet grassland:

- **Coventry City Council (CCC)** has achieved favourable condition of existing marsh & swamp communities (that then grade into reed bed & carr) at Coombe Country Park and of marshy grassland at Stonebridge Meadow.
- **WWT** manages wetland at Leam Valley Local Nature Reserve (with Warwick District Council), Welches flood meadow and Whitacre Heath flood meadow, in the Tame Valley:
- **Severn Trent** manages wet grassland at Haseley Gathering Grounds
- Alderham Flood Meadow at Barford is managed by grazing.

Restoration of wetland/wet grassland:

- **CCC** has restored degraded marsh at Coombe Country Park by scrub control & work with a local grazier to create tussocky wet grassland. Since coppicing, stubbing & pollarding the willows, the area of sedge beds has gradually extended, due to letting in more light and less water being drawn from the water table by the trees & shrubs.
- **Warwickshire County Council (WCC)** has improved community wetland at Kingsbury Water Park with the restoration of bog around Leys Brook.

Creation of wetland/wet grassland:

- **WCC** has created new wetlands at Kingsbury Water Park as part of the enhancement of its nature reserve.
- **WWT** has created wet meadow at Guphill Brook, Coventry and wet grassland at Wolston Fields increasing over 4 years.

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- The **RSPB** has created some 23ha of wetland habitat, [Middleton Lakes](#), resulting from restoration following sand and gravel extraction by Hanson Aggregates (2013) on the Warwickshire/ Staffordshire county border; this includes open water and more than 10ha of reed bed. RSPB also manages the grazing of Fishers Mill Meadow.
- On the **Packington Estate** the scrapes created to wet up some grassland did not hold water due to gravel veins in the clay; the water levels go up and down with the ground water which is often too low to tap into without much deeper pools (pers.comm. Nick Barlow 2018). Although breeding waders feed there they have not so far nested.

6. PROPOSED LOCAL ACTIONS

ACTION	Lead	Partners	By
PLEASE CONSULT THE '<i>GENERIC HABITATS</i>' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR ACTIONS COMMON TO ALL HABITAT PLANS			
Policy, Legislation & Protection			
PL1. Ensure that any site meeting the relevant criteria is considered for designation as an SSSI.	NE	RSPB WWT LAs BC HBA EA STW LWSP WCC WMBC ACs	ongoing
PL2. Continue to select all qualifying wetland sites as LWSs and enter onto database.	LWSP	LAs HBA WWT	ongoing
PL3. Ensure that the protection of all LWS - designated marsh and swamp is included in Local Development Plans, Neighbourhood Plans and any other relevant strategies.	WCC	NE WWT LAs	ongoing
PL4. Ensure that new minor or major developments aim for net biodiversity gain through adherence to the mitigation hierarchy, including assessing the impact of development on the hydrology.	WCC	LPAs NE WWT NWBC NBBC	ongoing
Site / Species Safeguard & Management			
SM1. Maintain favourable condition of the existing 90ha of marsh and swamp by appropriate management.	LOs	NE EA WWT STW WMBC WCC NAM RSPB LAs	ongoing
SM2. Restore a further 10ha of degraded marsh and swamp by 2025 and another 15ha by 2030.	LOs	NE NAM WWT WCC STW EA WMBC LAs RSPB	2025- 2030

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SM3. If suitable sites are identified (see RM1) expand the area of the habitat by at least a further 50ha by 2025 and another 50ha by 2030, of minimum area 1ha and ideally 5ha.	LOs	WMBC RSPB	WWT LAs	2025- 2030	
SM4. Retain old dead wet wood for nesting sites for lesser spotted woodpecker and willow and marsh tit; supplement with rotten logs with sawdust-filled holes for willow tit nests and check nests.	WWT	WMBC LAs	RSPB	ongoing	
SM5. Ensure that water level management plans prepared for all SSSIs containing marshland are designed to provide optimal water, including the water table and management conditions, and implement fully.	NE	EA LAs	WWT	ongoing	
SM6. Implement the national requirement for SuDS in all new housing schemes of more than 10 dwellings as well as commercial and industrial developments, using the opportunity to create new habitats.	WCC	NE LAs	EA WWT	ongoing	
SM7. Incorporate wetland mosaic habitat creation and restoration objectives where appropriate, e.g. in minerals and waste strategies as well as planning casework.	WCC	NE WCC WMBC	WWT EA HBA LAs MOs	ongoing	
Advisory					
A1. Inform landowners of LWS sites on the management of their wetland resource and advise accordingly.	LWSP	RSPB WCC	NE EA WWT	ongoing	
A2. Signpost Best Practice Guidelines to appropriate landowners via agri-environment schemes.	NE	WWT		ongoing	
Research & Monitoring					
RM1. Refer to existing WCC data to establish survey and research work to identify potential opportunities for wetland restoration and expansion, including large areas of wetland habitat, in after-use	WWT	WCC NAM	RSPB LWSP EA LAs	ongoing	

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schemes as a condition of mineral extraction licensing where appropriate.			
RM2. Monitor condition of SSSI designated marsh and swamp sites, including monitoring of water levels.	NE	WWT RSPB WCC	ongoing
RM3. Record further areas of wet grassland.	HBA	WWT WBRC LAs	ongoing
Communication, Education & Publicity			
CP1. Organise and deliver wetland management training days to wetland owners in order to illustrate best management techniques.	RSPB	EA WWT NAM	ongoing

Abbreviations: **ACs** – Aggregate Companies, **BC** – Butterfly Conservation, **EA** - Environment Agency, **HBA** – Habitat Biodiversity Audit partnership, **LAs** – Local Authorities, **LOs** – Landowners, **LPAs** – Local Planning Authorities, **LWSP** – Local Wildlife Sites Project, **MOs** – Mineral Operators, **NAM** – Nature after Minerals, **NE** – Natural England, **RSPB** – Royal Society for the Protection of Birds, **STW** - Severn Trent Water, **WCC** – Warwickshire County Council, **WMBC** – West Midland Bird Club, **WWT** – Warwickshire Wildlife Trust.

7. PROGRESS WITH ACTIONS

From 2015–2020 there will be a rolling programme of reporting on progress, of 10 action plans per year with an annual summary of results. Progress with this plan up to 2018 can be seen at <https://www.warwickshirewildlifetrust.org.uk/LBAP>

8. BIBLIOGRAPHY

Kirby, P. (1992). [Habitat management for Invertebrates](#): a Practical Handbook. RSPB.

Falk, S.J. (2009) Warwickshire's Wildflowers - provides habitat-specific species lists, and explanations of habitats from a botanical viewpoint.

Treweek Environmental Consultants (2009) Regional Spatial Strategy (R.S.S.) Phase 3 Regional Habitats Targets Review, Technical Report pp.71-94, prepared for the W. Midlands Regional Assembly.

Lawton, J.H. (2010) [Making Space for Nature](#): a review of England's wildlife sites and ecological network. Report to Defra, advocating a landscape-scale approach guided by four key principles, summarised as '*more, bigger, better and joined*'.

DEFRA (2011) [Biodiversity 2020](#): A strategy for England's wildlife and ecosystem services.

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Natural England (2006). [Priority Habitat Inventory \(England\)](#) - habitat surveillance pilots and inventory updates are part of the ongoing monitoring projects carried out by Natural England.

Dobson, M. et al. (2012) [Guide to Freshwater Invertebrates](#). Freshwater Biological Association. ISBN-13: 9780900386800

HBA (2013) The State of the Habitats of Warwickshire, Coventry and Solihull.

Natural England (2015) Commissioned report NECR170: The impact of phosphorus inputs from small discharges on designated freshwater sites.

RSPB (2016) [State of Nature](#) – a stocktake of all our native wildlife by over 50 wildlife organisations.

Natural England (2016) [Conservation Strategy for the 21st Century](#). Sets out how NE will help deliver DEFRA's ambitions for the environment to reverse biodiversity loss, sustain distinctive landscapes and enhance engagement with nature.

Fisher, G. *et al.* (2018) Rewetting of woodland: trial management on two RSPB nature reserves. *British Wildlife* vol. 29, no 3, pp191-196.

Worldwide Fund for Nature (2018) [The Living Planet Report](#): aiming higher. Published in collaboration with the Zoological Society of London.

9. FURTHER INFORMATION

Biodiversity Planning Toolkit - a new online resource to help incorporate biodiversity and geodiversity into the planning system and new development.

[Plantlife](#) - a charity which carries out plant species and habitat conservation, owns and manages nature reserves, campaigns, and raises awareness through education.

Wildfowl & Wetlands Trust (2015) – the [Wetland Manifesto](#) is a 10 point plan to look after the UK's remaining wetlands.

The Wildlife Trusts: [Help Wildlife at Home](#) shows simple things to help wildlife.

10. CONTACT

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