



# Wet Grassland Habitat Action Plan

## 1. Introduction

Wet grassland was included within the UK BAP habitat Coastal Floodplain and Grazing Marsh, which was subsequently listed within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. It supports many important species some of which are rare and/or declining. An estimated 40% of the UK's wet grassland was lost between the 1930s and the 1980s.

As a lowland county with significant river valleys Worcestershire has extensive extant and remnant wet grassland but what remains is very vulnerable to loss. The level of historic habitat loss seen at a national level is very likely to be mirrored in Worcestershire.

## 2. Current status

### 2.1 Description of habitat

UK wet grasslands provide valuable habitat for a range of native plants and animals. They develop on land which is periodically flooded or waterlogged by freshwater and where land management practices (cutting for hay, grazing) promote swards dominated by short grasses, rushes and sedges. They are not dominated by reeds. Semi-natural floodplain grassland occurs where floodplains are subject to semi-natural hydrological regimes (e.g. where flood embankments have been constructed). Naturally functioning floodplains are rare in the UK and do not occur in the county in any meaningful quantity. The term wet grassland is used to refer to several wetland types:

**Washlands** forming behind embanked areas created for flood storage (e.g. the Ouse Washes). These do not occur in Worcestershire.

**Water meadows** created to be deliberately flooded and thus to raise hay yields or provide early grass growth for cattle. Water management was undertaken using a complex system of sluices and drains. Today, few remain in working condition with some examples still present in the county.

**Wet grasslands** coinciding with ponds, lakesides and drainage channels as part of the natural hydrosere. Within the county there are many examples of small but nevertheless important wet grasslands in this category. All however have suffered a loss in extent and ecological resilience through drainage and intensive land management practices.

National Vegetation Classification (NVC) community types relevant to Worcestershire and included within this plan are:

NVC Community	Description
MG9	<b><i>Holcus lanatus-Deschampsia cespitosa</i>: damp pasture</b> Characteristic of permanently moist and periodically inundated soils throughout the British lowlands. Often results from the invasion of <i>Deschampsia cespitosa</i> into MG6 and 7 where

	drainage has deteriorated.
MG10	<b><i>Holcus lanatus</i>-<i>Juncus effusus</i>: rush-pasture</b> Characteristic of permanently moist and periodically inundated soils throughout the British lowlands. Commonly develops by invasion of <i>Juncus effusus</i> or, less frequently, <i>J. inflexus</i> into MG6 and 7 where drainage becomes impeded.
MG11	<b><i>Festuca rubra</i>-<i>Agrostis stolonifera</i>-<i>Potentilla anserine</i>: inundation grassland</b> Scattered localities in lowland England characteristic of areas frequently inundated with fresh or brackish water in floodplains or on the coast. Only one sub-community ( <i>Lolium perenne</i> ) is found inland and it has often been agriculturally improved.
MG12	<b><i>Festuca arundinacea</i>: coarse grassland</b> Almost exclusively a coastal community of estuaries, upper saltmarsh and soft cliffs that receive inundation by brackish water or small amounts of salt spray.
MG13	<b><i>Agrostis stolonifera</i>-<i>Alopecurus geniculatus</i>: inundation grassland, silver meadows</b> Widely distributed in lowland areas of Britain in periodically inundated floodplains, along watercourses and around water bodies. Often fragmentary alongside watercourses and the edges of ponds. Also occurs in freshwater-saltmarsh transitions.

## 2.2 Distribution and extent

Wet grassland is now mainly confined to the floodplains of England but much of what remains has been agriculturally improved and is of reduced value to wildlife. Some estimates of the historical resource indicate there were at least 1.2 million hectares but now less than 0.2 million hectares remains.

In Worcestershire, most of the resource is to be found in the floodplains of the Severn and Avon Vales, including important sites such as the network of old commons around Kempsey which exist in a mosaic with other key habitat types and support a number of rare flora. There are also important semi-natural wet grasslands in the Stour valley, in particular associated with the marshes of Wilden, Puxton and Stourvale. These sites also contain other habitats including limited areas of fen and marsh. The loss of such large areas of wet grassland has had an adverse impact on breeding waders such that today, in the Worcestershire Severn and Avon Vales, snipe (*Gallinago gallinago*) no longer breed and populations of redshank (*Tringa totanus*), lapwing (*Vanellus vanellus*) and curlew (*Numenius arquata*) are reduced to just a few pairs each.

## 2.3 Protection of the habitat

- Sites can be designated as Special Areas of Conservation and/or Special Protection Areas under European Union Directives (the 'Habitats Directive' and the 'Birds Directive' respectively).
- Sites can be designated as a Site of Special Scientific Interest (SSSI) under the Wildlife and Countryside Act 1981 (as amended).
- Coastal and floodplain grazing marsh is listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

- The Water Framework Directive (2000) requires improvements to the ecological quality of water bodies, flood and drought attenuation and restoration of groundwater.
- Sites not meriting SSSI status can be listed as a Local Wildlife Site (LWS). Although not a statutory designation LWS status does confer some protection through the planning system.

## **2.4 Summary of important sites**

- Lazy Meadows SSSI, Twyning Meadows SSSI and Stourvale SSSI are all sites of national significance.
- The Kempsey Hams Local Wildlife Sites complex contains examples of old 'Lammas' meadows.
- The Avon Meadows LWS is managed as a Local Nature Reserve by Wychavon District Council (part-owned with Pershore Town Council). Sitting in the floodplain of the River Avon, the site has been developed over a 10 year period into a mosaic of reedbed, standing open water, scrub and seasonally wet grassland.
- Worcestershire Wildlife Trust manages areas of wet grassland on several nature reserves including Hill Court Farm and the Blacklands.
- The Vale Landscape Heritage Trust owns Lower Moor Water Meadows on the River Avon.

## **3. Current factors affecting the habitat**

- Land drainage has led to wet grassland sites being lost and remaining patches becoming hydrologically isolated and vulnerable to desiccation.
- River and groundwater abstraction and engineering works for flood alleviation may reduce water availability to floodplain and spring-fed sites.
- Eutrophication of sites through inundation with nutrient-rich (flood) water has led to a reduction in sward diversity and the dominance of vigorous grass species.
- Reduction in ground water levels has resulted in the loss of flora and fauna dependant on high groundwater conditions.
- Ecological isolation due to fragmentation of the resource inhibits movement of species between sites.
- Inappropriate management of sites for the purposes of agricultural intensification, in particular conversion from hay to silage cutting, over/under grazing and applications of fertilisers.
- Climate change causing fluctuating and inconsistent rainfall patterns resulting in inundation and drought.

- Development pressure – developers lack awareness of the value and sensitivity of potential development sites.
- Weakness in information distribution between relevant bodies and individuals.
- Inconsistency in availability of grant funding that can encourage better long-term management of existing sites and help financially with restoration and creation projects.
- Poor economic incentive for landowners. More advice and real outcomes are required to encourage activities such as local branding.
- Sand and gravel extraction within floodplains.
- Leisure and recreational uses of the riverbank environs e.g. caravan parks, angling club infrastructure.

## 4. Current Action

### 4.1 Local protection

SSSI designations are used to protect some of the most valuable sites within the county. LWS are non-statutory but help identify valuable sites that receive protection within local planning policy.

### 4.2 Habitat management and programmes of action

- Hill Court Farm is one of Worcestershire Wildlife Trust's flagship reserves consisting of 120 ha of wet grassland and hay meadow. The site is at the core of efforts to restore parts of the Longdon and Eldersfield Marshes. A reservoir and series of ditches maintains a high water table across the northern half of the site to benefit breeding and overwintering birds. Restoration work began in 2004 and the site is being monitored to track changes in botanical community and record species utilising the site.
- Worcestershire Wildlife Trust has managed the Hardwick Green Meadows reserve since 2016. The 20 ha floodplain meadow is being managed with an annual regime of hay cutting and aftermath grazing.
- The Vale Landscape Heritage Trust manages just over 40 ha of floodplain meadow along the River Avon. The ditches and scrapes at the Lower Moor Water Meadows provide important habitat for wetland birds whilst Haines Meadow and Gore Meadow are cut for hay.
- The Catchment Based Approach is being employed in a number of river and tributary catchments across Worcestershire. This approach embeds collaborative working within a multi-sector partnership, to deliver improvements to the water environment at a river catchment scale. CaBA partnerships are operational within the Severn Vale, Warwickshire Avon, Middle Severn and the Teme.
- Many of the larger extant areas of wet grassland, particularly within the Severn and Avon Vales, have been restored and are being managed with the support of agri-environment payments.

#### **4.3 Survey, research and monitoring**

- The Floodplain Meadows Partnership is focused on research, management, promotion and restoration of floodplain meadows.
- A number of wet grassland / wetland sites within the Avon Vale are monitored almost daily by volunteers, particularly in respect of bird species using the sites e.g. Avon Meadows and Lower Moor Water Meadows.
- Worcestershire Wildlife Trust is carrying out annual botanical surveys at Hardwick Green Meadows to monitor the changing species composition of the grassland as the site is undergoing restoration. An undergraduate study at the site has looked at the correlation between the water table and species composition on the reserve. This study concluded that the MG4 wet grassland habitat has been sustained by flood water inundation rather than the level of the water table. This is unusual in wet grassland habitats.

#### **5. Associated Plans**

Rivers and Streams, Wet Woodland, Ponds and Lakes, Fen and Marsh, Otter, Water Vole, Black Poplar, Farmland Birds.

#### **6. Conservation Aim**

Good management of all existing wet grassland sites that are protected under national or local designations or are within conservation ownership has been maintained and new sites have been identified, given protection and brought into favourable management wherever possible.

#### **7. Conservation Objectives**

- The restoration and management of wet grassland should be prioritised for funding under any currently available grant schemes
- Wet grassland sites where restoration to MG4 could be achieved should be identified and a strategy developed and implemented to deliver this\*
- Engagement with and education of landowners within the Avon floodplain to achieve further reversion of arable farmland to grassland alongside the river
- Wet grassland creation and enhancement to be a focus of the Carrant Catchment Area Restoration Project
- Wet grassland should form a component of Green Infrastructure plans to deliver the multifunctional benefits of flood storage, public open space and biodiversity
- Support the development of the Southern Curlew Group and its activities within the Severn and Avon Vales of Worcestershire

\* MG4 floodplain meadows are included within the Worcestershire Semi-Natural Grasslands Habitat Action Plan and delivery of this objective should be undertaken with reference to both Action Plans

## Reference and further information

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