CRCL/R/OBJ211/3

COUNTY: OXFORDSHIRE **SITE NAME:** WENDLEBURY MEADS AND MANSMOOR CLOSES

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981

Local Planning Authorities: Cherwell District Council, Oxfordshire County Council

National Grid Reference: SP562175

Ordnance Survey Sheet 1:50,000: 164 **1:10,000:** SP51 NE

Date Notified (Under 1949 Act): 1977 **Date of Last Revision:** 1977

Date Notified (Under 1981 Act): 1986 **Date of Last Revision:** 1987

Area: 73.2 ha 180.9 ha

Description and Reasons for Notification

Wendlebury Meads consists of a series of traditionally-managed unimproved neutral meadows supporting a complex variety of plant communities that have developed in response to varying management, drainage and soils. The meadows are amongst the few surviving examples of calcareous clay pasture communities which were widespread throughout southern England at the turn of the century, but now rare owing to agricultural improvement and urbanisation.

Wendlebury Meads occupy an area of low-lying ground, about 60 metres above sea level, which drains south-eastwards into a tributary of the River Ray. The area is underlain by Oxford Clay, and much is covered by clayey or fine loamy head. Four soil types are recognised. Cambic stagnogley soils of the Rowsham series mantle the broad flat area of the site. Both deep and shallow variants of the Lawford series cover land to the west, whilst to the east there are pelo-alluvial gley and pelo-calcareous alluvial gley soils of the Thames/Fladbury series. Short term flooding often occurs with the overflow of water from the River Ray.

Almost all of the fields of Wendlebury Meads have ridge and furrow topography which is evidence of past ploughing. Aerial photographs reveal a typical reversed 'S' shape to the ridges and furrows, originating from plough teams always turning left at the end of each line. The narrower fields known as the Mansmoor Closes demonstrate an early example of enclosure by agreement (date unknown, but not later than 1622) and are of landscape and archaeological importance. These fields also have a reversed 'S' shape showing that their hedges were planted alongside ridges pre-dating this period. In contrast the ridges either side of the parish boundary hedge are unrelated in their alignment, indicating that this boundary is of an earlier origin than the ridges.

Whereas contemporary intensive agriculture can eradicate most species of broadleaved herbs, arable farming often had significantly less influence on the flora in historic times. This is partly because furrows were not cultivated, leaving a reservoir of native species, partly because there was no drilling of grasses, plants being allowed to re-establish naturally, perhaps supplemented by sweepings from the hay barn and partly because herbicides and inorganic fertilisers were never applied.

All of the site north-east of the parish boundary forms part of the abandoned Starveall Farm, for which there is detailed historical information. Although most of the farm was arable until the late 19th century, some areas have probably always been grassland. All the land has been managed as grassland since 1920, and with one exception fields have been consistently grazed or cut for hay without reseeding or drainage. Within Starveall Farm there has been no ploughing since 1920 apart from one field which was treated in 1945-6 and which remains floristically distinct today. Herbicides have never been used and fertilisers added only twice to certain fields.

The majority of the meadows which make up this site are outstanding examples of calcareous clay pasture communities. One field lying beside the tributary of the River Ray in the south-eastern corner of the site conforms to the sedge-rich meadow type which is a predominantly western community. This field is the only place known where this community is found growing in association with several species of the ridge and furrow community typical of old hay meadows in East

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The flora is exceptionally diverse with more than 160 plant species present, many of which are widely distributed throughout the site and are intricately mixed within the fields.

As with all suites of meadows there are individual differences resulting from varying drainage patterns, management (summer grazing or hay) and soils. However, the general grassland type of the ridges is that of common bent *Agrostis capillaris*, red fescue *Festuca rubra*, sweet vernal grass *Anthoxanthum odoratum* and quaking grass *Briza media*, together with yellow rattle *Rhinanthus minor*, pepper-saxifrage *Silaum silaus* and devil's-bit scabious *Succisa pratensis*. The furrows are characterised by marsh foxtail *Alopecurus geniculatus*, tufted hair-grass *Deschampsia cespitosa*, amphibious bistort *Polygonum amphibium*, lesser spearwort *Ranunculus flammula*, creeping Jenny *Lysimachia nummularia*, ragged robin *Lychnis flos-cuculi* and lady's smock *Cardamine pratensis*.

Plants confined largely to the hayfields include sneezewort *Achillea ptarmica*, common spotted orchid *Dactylorhiza fuchsii*, dropwort *Filipendula vulgaris*, adder's tongue *Ophioglossum vulgatum*, green-winged orchid *Orchis morio*, common milkwort *Polygala vulgaris*, cowslip *Primula veris* and saw-wort *Serratula tinctoria*. Plants confined to the grazed field are fewer in number and include species typical of poached ground such as yarrow *Achillea millefolium*, daisy *Bellis perennis* and creeping thistle *Cirsium arvense*, all occurring within a species-rich mixture. Plants particularly associated with the sedge-rich meadow include carnation, glaucous, brown, spring and tawny sedges *Carex panicea, C. flacca, C. disticha, C. caryophyllea* and *C. hostiana* respectively, occurring with heath grass *Danthonia decumbens* and locally abundant meadow thistle *Cirsium dissectum*. Other plants recorded which are characteristic of traditionally managed grasslands include frog orchid *Coeloglossum viride*, betony *Stachys officinalis*, dyer's greenweed *Genista tinctoria*, spiny restharrow *Ononis spinosa* and great burnet *Sanguisorba officinalis*. There is a particularly diverse flora of dandelions *Taraxacum* spp. with 11 different species currently recorded.

The hedges provide a habitat for other plants not found within the fields. They are mainly composed of hawthorn, with blackthorn and rose also abundant. The hedges with the greatest variety of species are those bordering the Mansmoor Closes and the one alongside the parish boundary. The latter has a total of 14 species recorded including field maple *Acer campestre* and spindle *Euonymus europaeus*, both of which are often associated with long-established hedges.

The bird fauna of Wendlebury Meads includes breeding snipe and curlew. Other species recorded include golden plover, whitethroat, lesser whitethroat, reed bunting, green woodpecker, grasshopper warbler and barn owl. The meadows support large numbers of common butterflies, including meadow brown, hedge brown, small copper, common blue, green veined white and marbled white.

Operations likely to damage the special interest

Site name: Wendlebury Meads & Mansmoor Closes

OLD1001141

Ref. No.	Type of Operation
1	Cultivation, including ploughing, rotovating, harrowing, and re-seeding.
2	The introduction of or changes in the grazing regime (including type of stock or intensity or seasonal pattern of grazing and cessation of grazing).
3	The introduction of or changes in stock feeding practice.
4	The introduction of or changes in the mowing or cutting regime (including hay making to silage and cessation).
5	Application of manure, fertilisers and lime.
6	Application of pesticides, including herbicides (weedkillers).
7	Dumping, spreading or discharge of any materials.
8	Burning.
9	The release into the site of any wild, feral or domestic mammal, reptile, amphibian, bird, fish or invertebrate, or any plant or seed.
10	The killing or removal of any wild mammal, reptile, amphibian, bird, fish or invertebrate, including pest control.
11	The destruction, displacement, removal or cutting of any plant or plant remains, including tree, shrub, herb, hedge, dead or decaying wood, moss, lichen, fungus, leaf-mould and turf.
12	The introduction of or changes in tree and/or woodland management including afforestation and planting.
13a	Drainage (including the use of mole, tile, tunnel or other artificial drains).
13b	Modification of the structure of watercourses (eg ditches, dykes, drains), including their banks and beds, as by re-alignment, re-grading and dredging.
13c	Management of aquatic and bank vegetation for drainage purposes.
14	The changing of water levels and tables and water utilisation (including irrigation, storage and abstraction from existing water bodies and through boreholes).
15	Infilling of ditches, drains, ponds, pools or marshes.
20	Extraction of minerals, including topsoil and sub-soil.
21	Construction, removal or destruction of roads, tracks, walls, fences, hardstands, banks, ditches or other earthworks, or the laying, maintenance or removal of pipelines and cables, above or below ground.
22	Storage of materials.
23	Erection of permanent or temporary structures, or the undertaking of engineering works, including drilling.
26	Use of vehicles likely to damage or disturb features of interest.
27	Recreational or other activities likely to damage features of interest.
28	The introduction of or changes in game and waterfowl management and hunting practice.

Views About Management

ENGLISH NATURE

A statement of English Nature's views about the management of Wendlebury Meads and Mansmoor Closes Site of Special Scientific Interest (SSSI).

This statement represents English Nature's views about the management of the SSSI for nature conservation. This statement sets out, in principle, our views on how the site's special conservation interest can be conserved and enhanced. English Nature has a duty to notify the owners and occupiers of SSSI of its views about the management of the land.

Not all of the management principles will be equally appropriate to all parts of the SSSI. Also, there may be other management activities, additional to our current views, which can be beneficial to the conservation and enhancement of the features of interest.

The management views set out below do not constitute consent for any operation. English Nature's written consent is still required before carrying out any operation likely to damage the features of special interest (see your SSSI notification papers for a list of these operations). English Nature welcomes consultation with owners, occupiers and users of the SSSI to ensure that the management of this site conserves and enhances the features of interest, and to ensure that all necessary prior consents are obtained.

Management Principles

Neutral hay meadows require active management if they are to retain their conservation interest. In order to maintain a species-rich sward, each year's growth of vegetation must be removed. Otherwise the sward becomes progressively dominated by tall and vigorous grasses which, together with an associated build up of dead plant matter, suppress less vigorous species and reduce the botanical diversity of the site. In neutral hay meadows, the above objective is traditionally achieved by closing the fields to stock in the autumn and cutting the resultant growth as hay, usually in early July. The precise timing of the cut depends on local factors, including past management and current weather conditions, but should be after ground-nesting birds have fledged their young and any short-lived, characteristic plants have set seed. The aftermath is then grazed in late summer/autumn. Aftermath grazing is important for maintaining a species-rich sward, both through controlling competitive grasses and through hoof-prints providing suitable sites for seedlings to establish. Heavy poaching must be avoided, however. Any surrounding, well-managed hedgerows may considerably add to the habitat in providing shelter for invertebrates. The application of pesticides including herbicides or fertilizers would be damaging but periodic dressings of well-rotted farmyard manure may be acceptable if the sward does not receive regular input of nutrients from flooding. Occasional dressings of lime may be acceptable.

For the damper meadows, regular and careful maintenance of surface drainage including ditches and drains can be necessary to prevent adverse changes in the plant species composition of the sward. Deepening of surface drainage should be avoided.