

COUNTY: BERKSHIRE

SITE NAME: STANFORD END MILL AND
RIVER LODDON

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

Local Planning Authorities: Newbury District Council, Wokingham District Council, Berkshire County Council, Basingstoke & Deane Borough Council, Hampshire County Council

National Grid Reference: Meadows: SU705633; River SU707630-SU721653

Ordnance Survey Sheet 1:50,000: 175 **1:10,000:** SU76 NW/SW

Date Notified (Under 1949 Act): 1952 **Date of Last Revision:** 1975

Date Notified (Under 1981 Act): 1983 **Date of Last Revision:** 1987

Area: 13.4 ha 33.0 ac

Other information: The Berkshire meadows were renotified in 1983 under Section 28 of the Wildlife and Countryside Act, 1981 and, together with the Hampshire meadow, are subject to an Agreement under Section 15 of the Countryside Act 1968. The site boundary was revised in 1986 to include the River Loddon.

Description and Reasons for Notification

The site comprises Stanford End Mill meadows, a series of traditionally-managed seasonally waterlogged hay meadows, and a 4 km stretch of the River Loddon, a tributary of the River Thames. The valley is situated on Tertiary deposits of Valley Gravel and River Alluvium overlying London Clay.

The site is of interest particularly for nationally important populations of two rare plants: the fritillary *Fritillaria meleagris*, a native bulb of unimproved damp meadows now mainly confined to scattered localities in southern Britain, and the Loddon pondweed *Potamogeton nodosus*, a very rare aquatic species for which this length of the River Loddon is the national stronghold.

Stanford End Mill meadows supports a large and thriving colony of fritillaries (also known as 'snakes-head' fritillaries), including the largest population in Berkshire and also the only site for this species in Hampshire. The sward is dominated by grasses such as meadow foxtail *Alopecurus pratensis* and Yorkshire fog *Holcus lanatus* and contains a wide variety of other familiar grassland herbs such as meadow buttercup *Ranunculus acris*, common sorrel *Rumex acetosa* and ribwort plantain *Plantago lanceolata*. The meadows are managed by cutting hay in July followed by grazing with cattle until the end of the year. This traditional type of treatment allows the fritillaries to complete their life cycle and also benefits other species such as common knapweed *Centaurea nigra*, yellow rattle *Rhinanthus minor* and pepper-saxifrage *Silvaum silaus*. The uncommon adder's-tongue fern *Ophioglossum vulgatum* also occurs.

Many flowering plants thrive particularly in the damper parts of the meadows, often along old drainage channels. These include brown and carnation sedges *Carex disticha* and *C. panicea*, cuckooflower *Cardamine pratensis*, ragged-robin *Lychnis flos-cuculi* and tubular water-dropwort *Oenanthe fistulosa*.

The River Loddon is a naturally base-rich stream originating from sources in the chalk of the North Downs. This section, which lies approximately mid-way between source and confluence, follows a gentle gradient on flat land and is rather slow-flowing. The Loddon pondweed forms dense mats of floating and submerged leaves, especially where there is less shading from the banks and adjacent trees or woodland. Research has indicated that this species survives best in water which is well aerated and low in ammonium nitrogen, the plant often occurring downstream of weirs and sluices associated with older water mills, as is the case at this locality.

Fennel-leaved pondweed *Potamogeton pectinatus*, a submerged species, is also abundant along the river, although other aquatic plants such as yellow water-lily *Nuphar lutea* and arrowhead *Sagittaria sagittifolia* occur less frequently. Dense stands of common club-rush *Schoenoplectus lacustris* and branched bur-reed *Sparganium erectum* are present in some shallower areas.

The banks support a thick-growing, mixed tall fen vegetation dominated by species such as great willowherb *Epilobium hirsutum*, hemp-agrimony *Eupatorium cannabinum*, common comfrey *Symphytum officinale*, purple loosestrife *Lythrum salicaria* and meadowsweet *Filipendula ulmaria*, with butterbur *Petasites hybridus* occurring locally. Smaller growing species include water forget-me-not *Myosotis scorpioides*, water chickweed *Myosoton aquaticum* and water-cress *Nasturtium officinale*. Nettles *Urtica dioica* dominate disturbed areas, sometimes with teasel *Dipsacus fullonum*.

The river is only moderately shaded by trees in places; oak, ash and alder occurring sparingly along the banks, together with numerous cricket-bat willows (a variety of the white willow) *Salix alba*, which are grown commercially.

Two rare pea-mussels *Pisidium moitessierianum* and *P. tenuilineatum* reflect the high water quality and base-rich conditions. Several uncommon species of mollusc have also been recorded from the meadows, including the snails *Vertigo antivertigo* and *V. moulinsiana* which are restricted to fens and marshes.

The river supports a variety of coarse fish species, water voles and nesting birds, including little grebe, moorhen, coot, mute swan and kingfisher.